



RECLAIMING THE WATER CITY

Urban Regeneration Strategies Based on Water City Identity of Jiaxing

Yiwen Ji

2024/6/20

How can the revitalization of Jiaxing's **urban identity as a water city** be facilitated by enhancing the role of water to improve the **integral sustainability of the city?**

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2. Methodology
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5. City Strategies
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Why ?

Which method ?

What it is ?

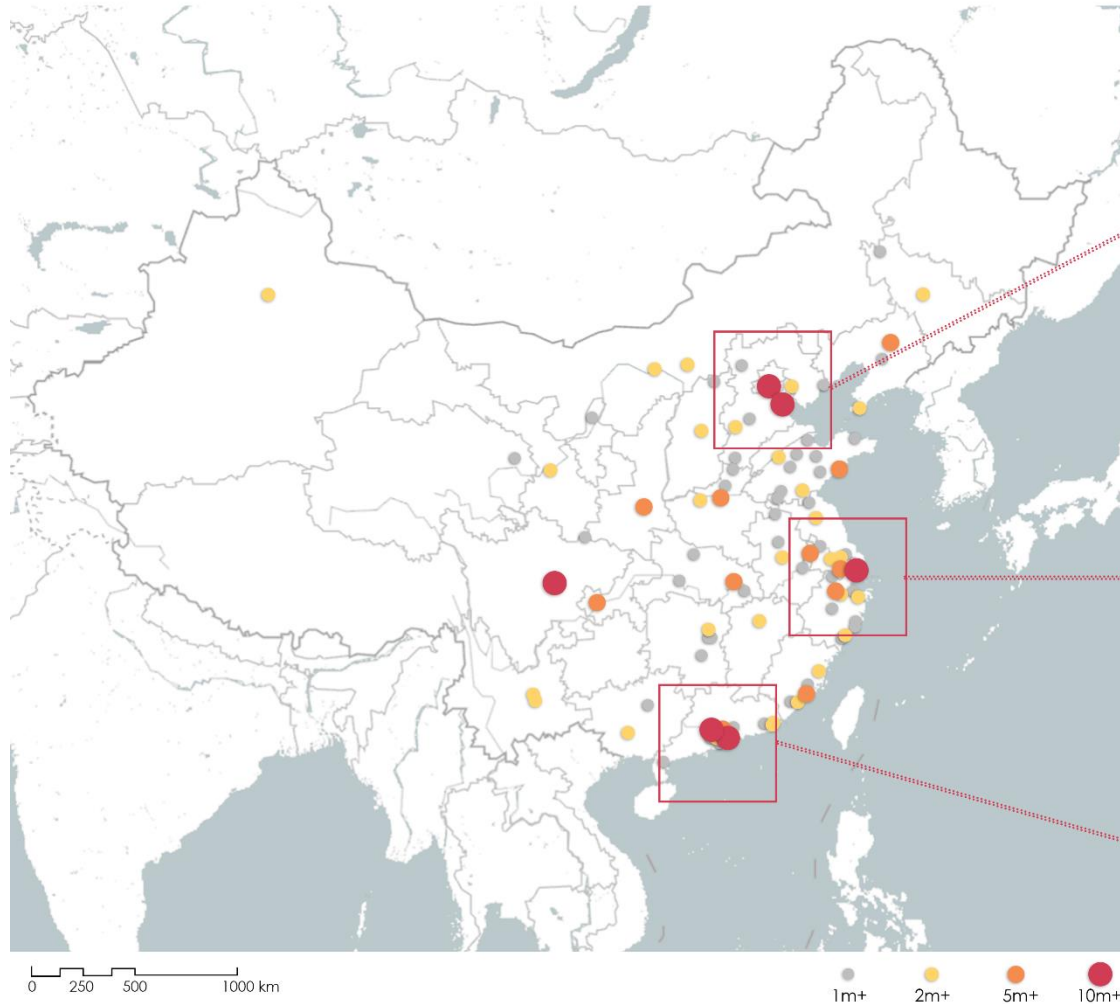
How



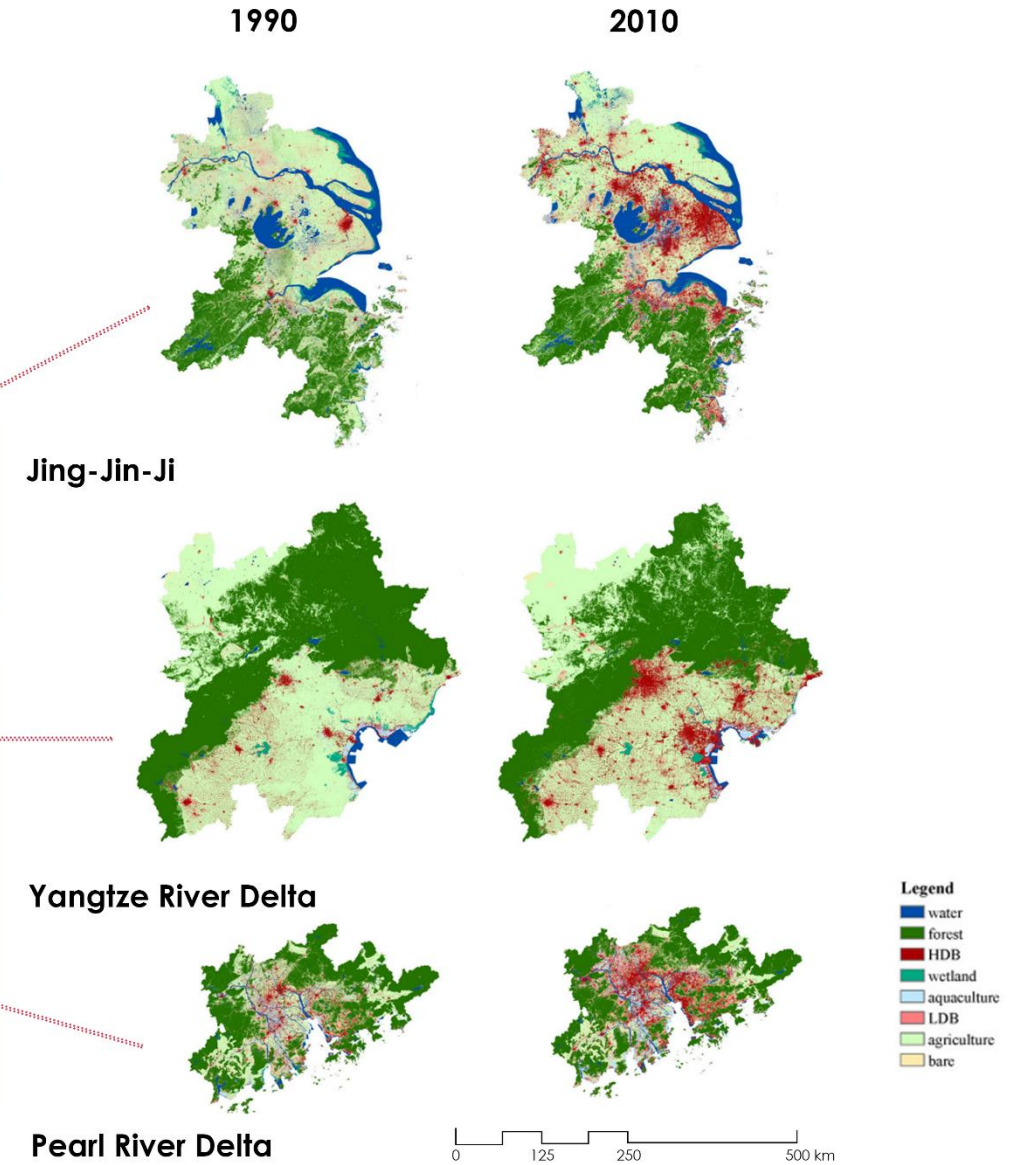
1. Problem Field

1. Problem Field

Ecological problems caused by rapid urbanisation



Chinese Cities with more than 1 million population (2017)
source: <https://www.theguardian.com/cities/2017/mar/20/china-100-cities-populations-bigger-liverpool>

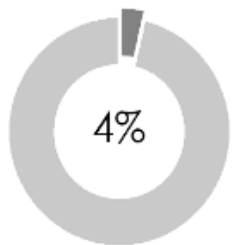


Classification of land use results from 1990 and 2010 in JJJ, YRD, and PRD areas

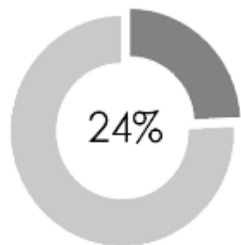
source: Haas, J., & Ban, Y. (2014). Urban growth and environmental impacts in Jing-Jin-Ji

1. Problem Field

Yangtze River Delta



YRD's area in China

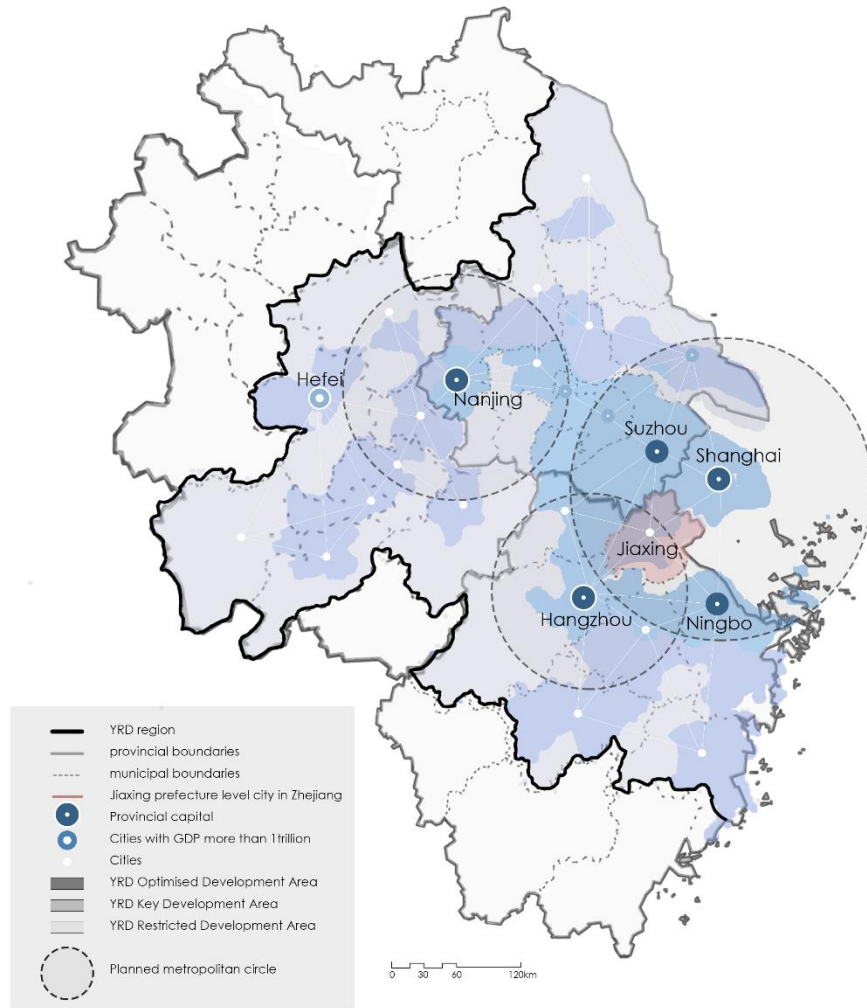


YRD's GDP in China (2023)

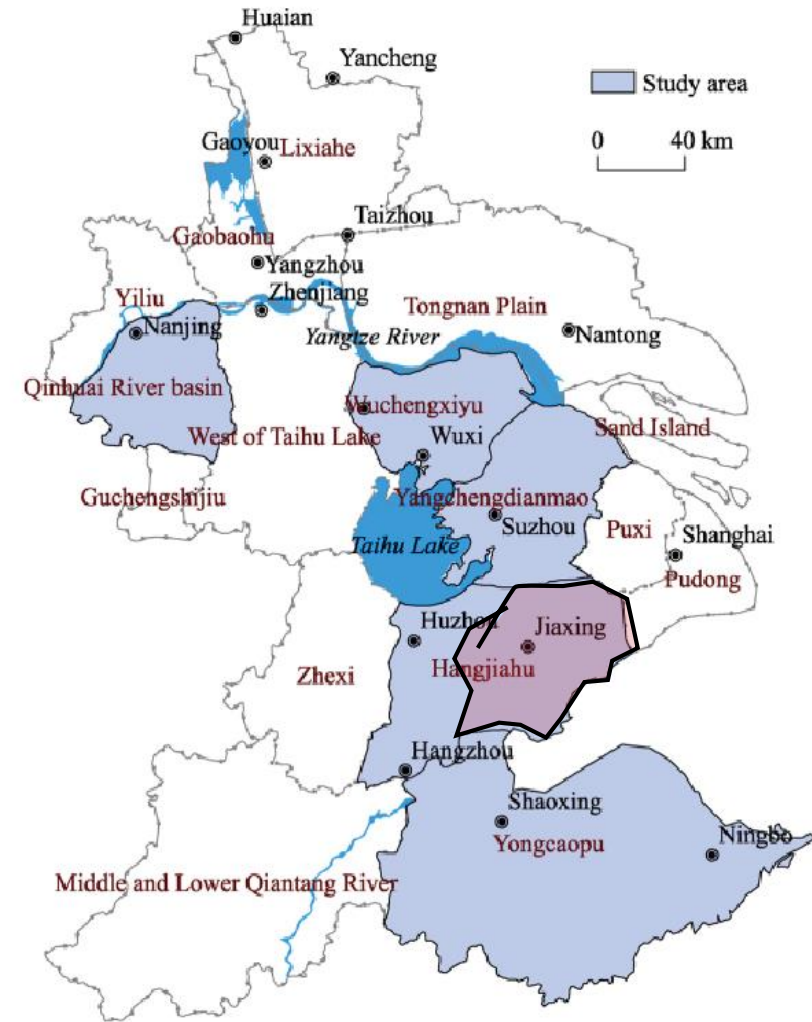


1. Problem Field

Location of Jiaxing



Jiaxing in Yangtze River Delta Economic Area



The hydrologic districts of Yangtze River Delta Area

Source: Han, L. (2015). Temporal and spatial change of stream structure in Yangtze River Delta and its driving forces during 1960s-2010s.

1. Problem Field

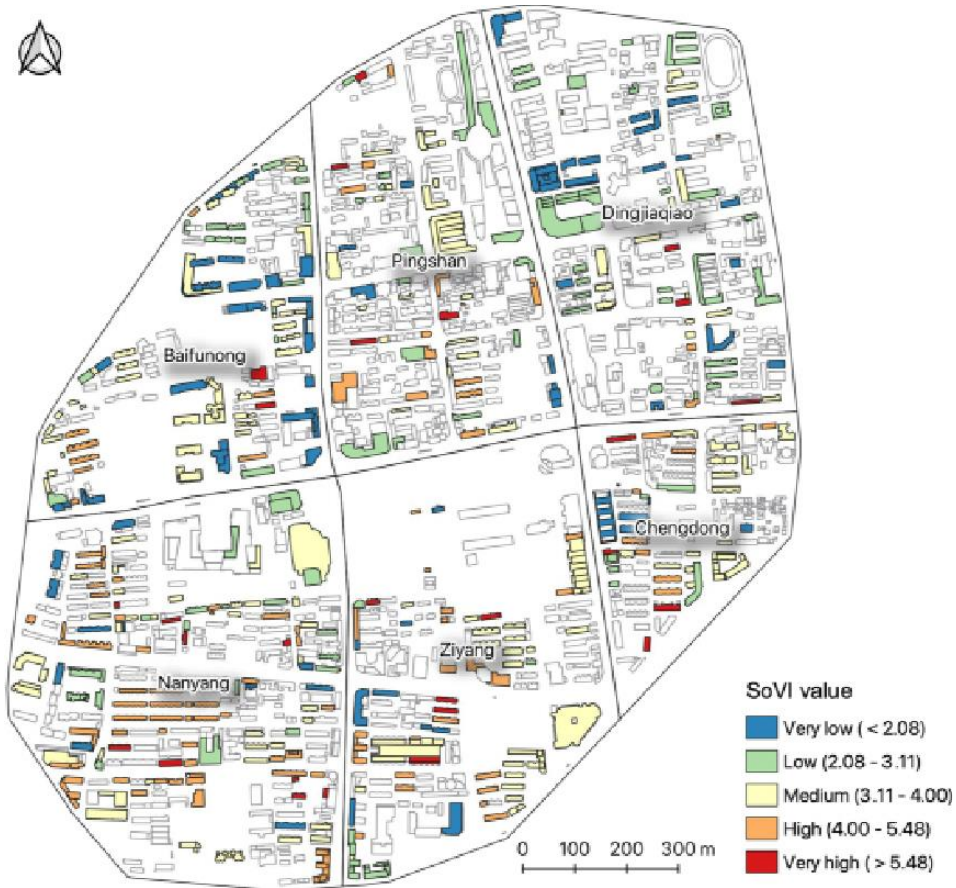
Identity loss in Jiaxing



Photos of Landscape Comparison in
Daqiao Town, Jiaxing

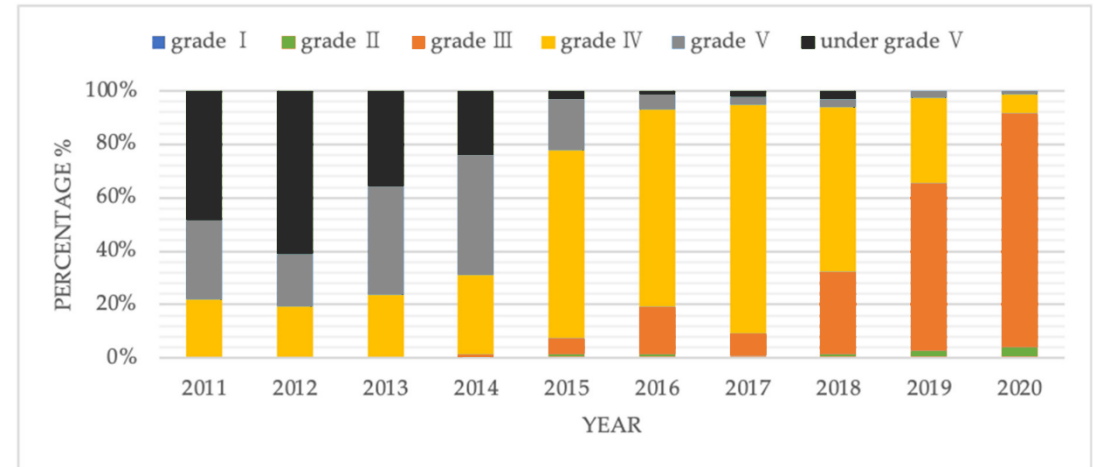
1. Problem Field

Challenges of identity loss



Spatial patterns of social vulnerability at the level of apartment blocks in the city centre

Source: Yi, G., Dou, W., Tao, Z., Yang, Y., Mao, Y., & Zhou, D. (2024). Characterizing the nature of social vulnerability to disasters in Inner-City households: Case of Jiaxing, China.



Water quality of surface water in Jiaxing from 2011 to 2020

Source: 2011-2020 Jiaxing water resource bulletins

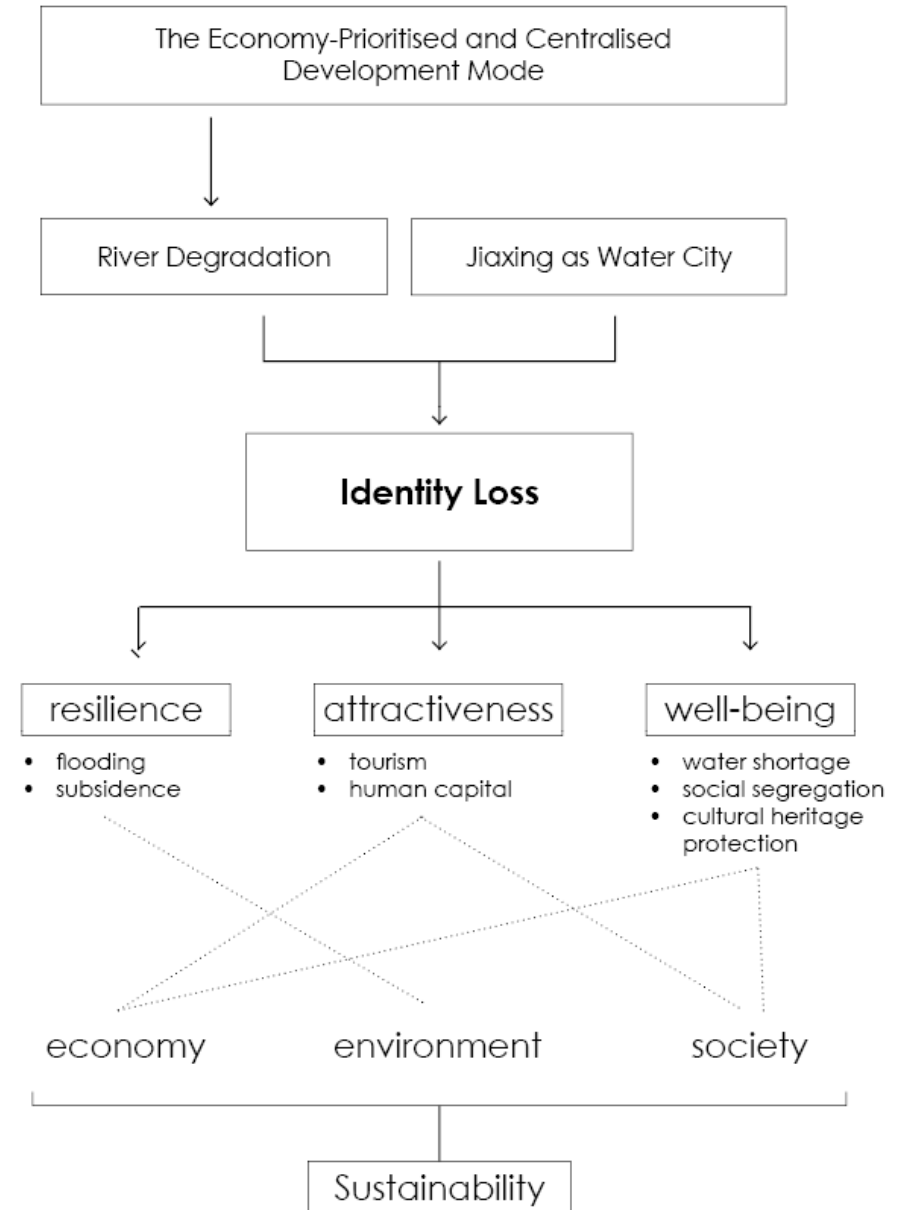


Old residential area in the city centre

Source: Baidu Map

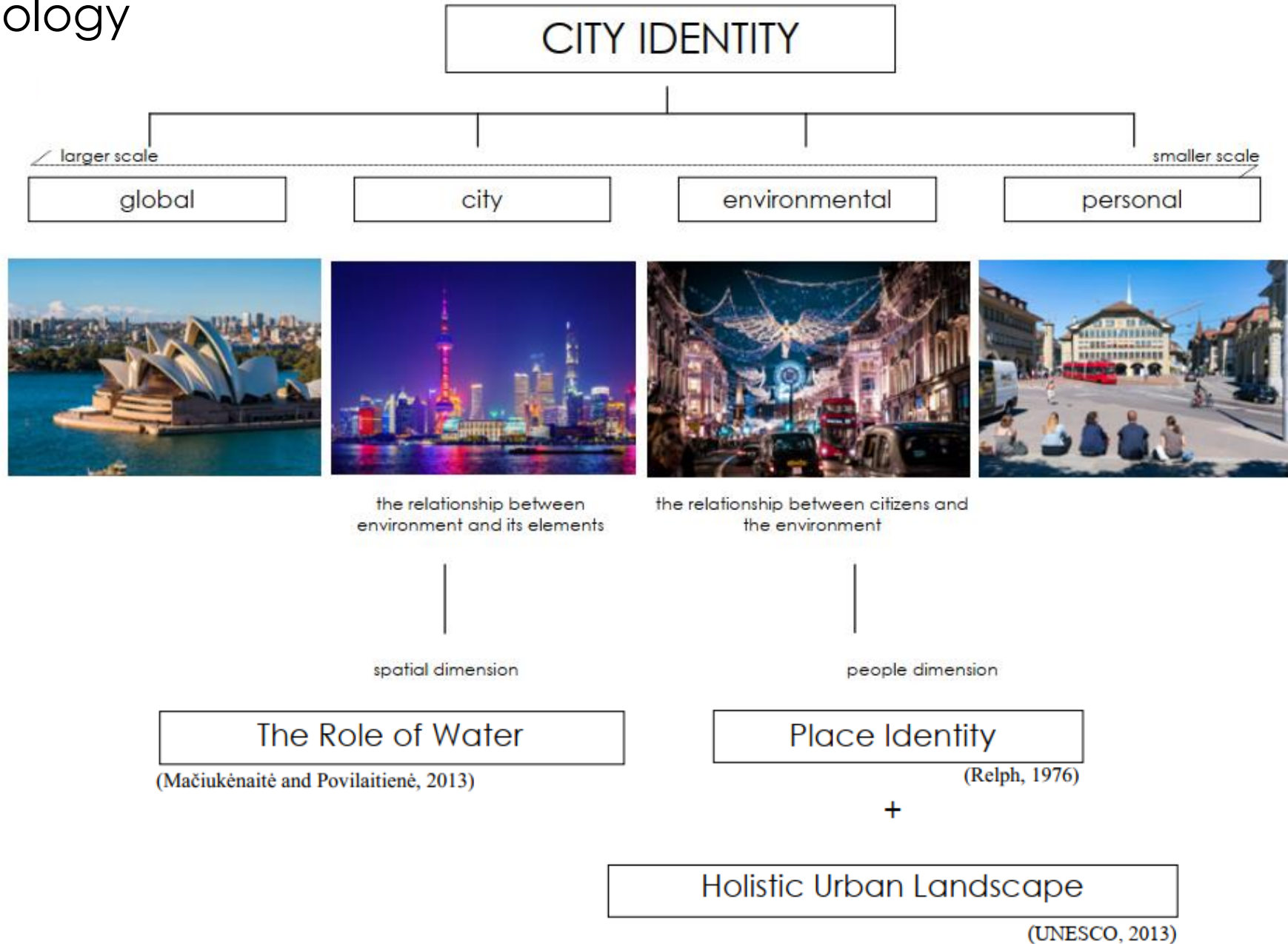
Problem statement

In the **Chinese development mode** that prioritizes the economy and emphasizes the central city, the **water city identity** of the secondary city of Jiaxing has been weakened, posing challenges to **future sustainable development**.



2. Methodology

2. Methodology

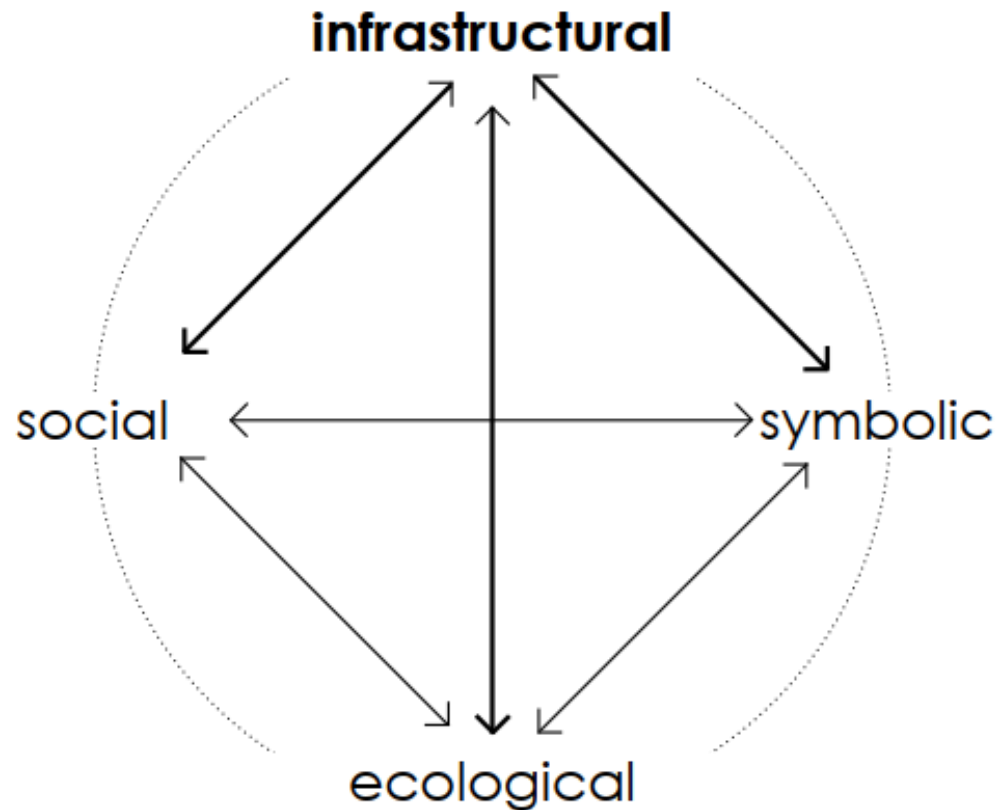


2. Methodology

Regional Scale

The Role of Water

(Mačiukėnaitė and Povilaitienė, 2013)



City Scale

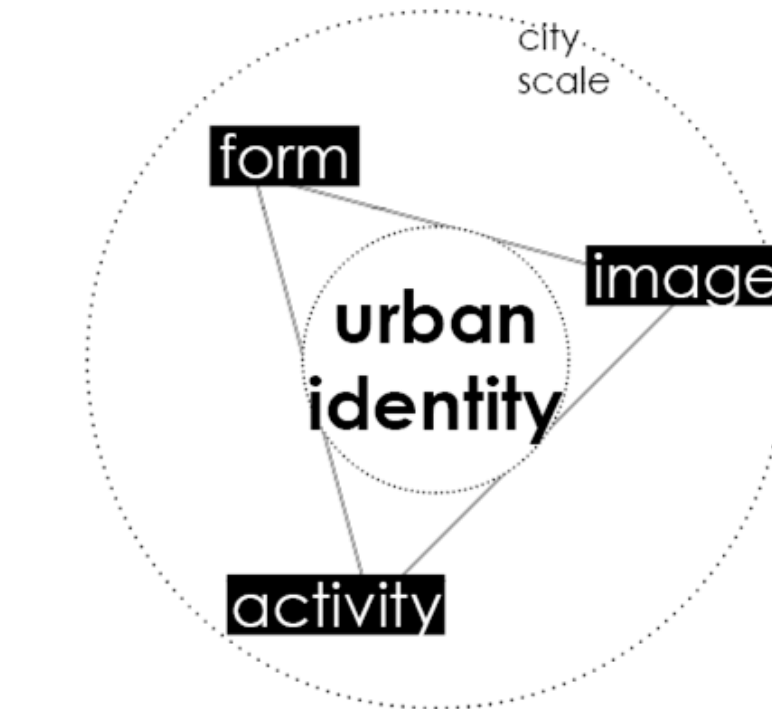
Place Identity

(Relph, 1976)

+

Holistic Urban Landscape

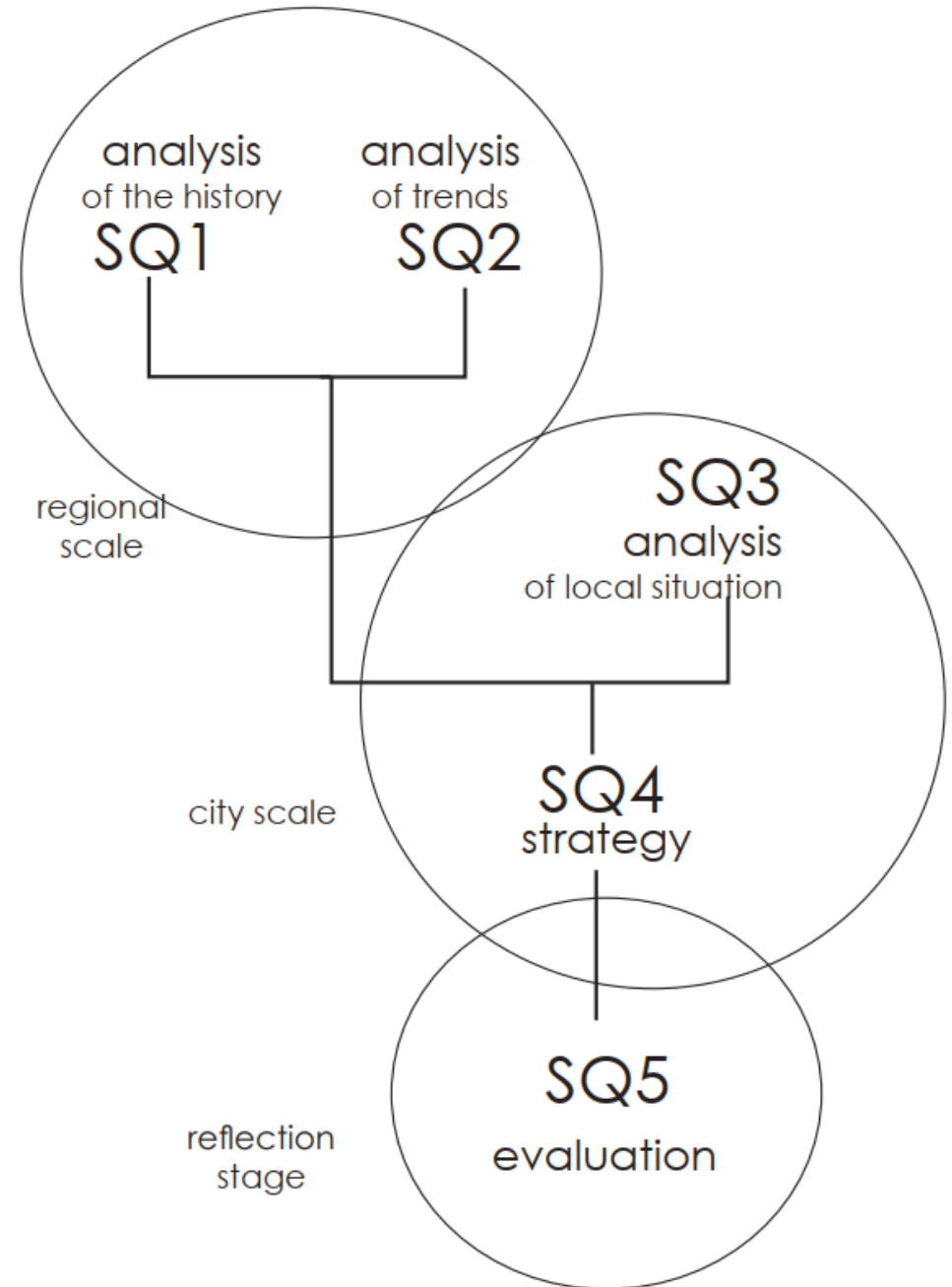
(UNESCO, 2013)



2. Methodology

Research Question

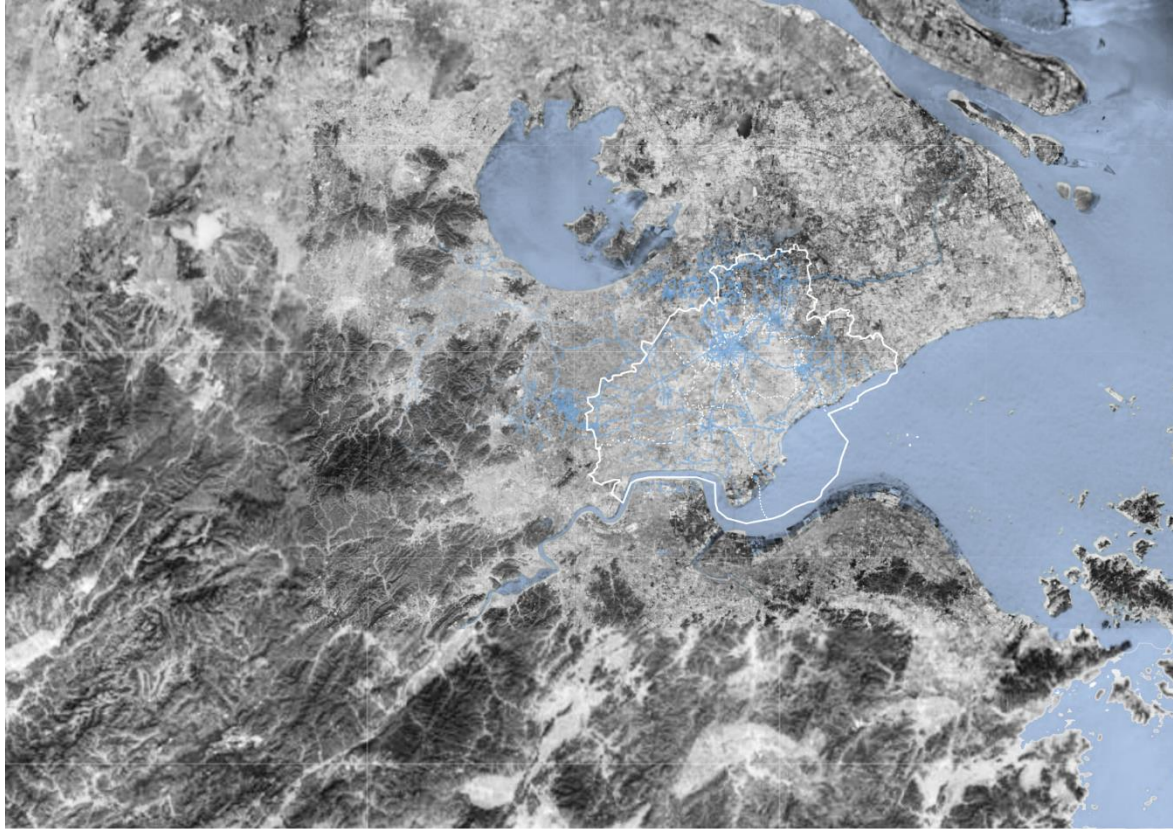
How can the revitalization of Jiaxing's **urban identity as a water city** be facilitated by enhancing the role of water to improve the **integral sustainability of the city**?



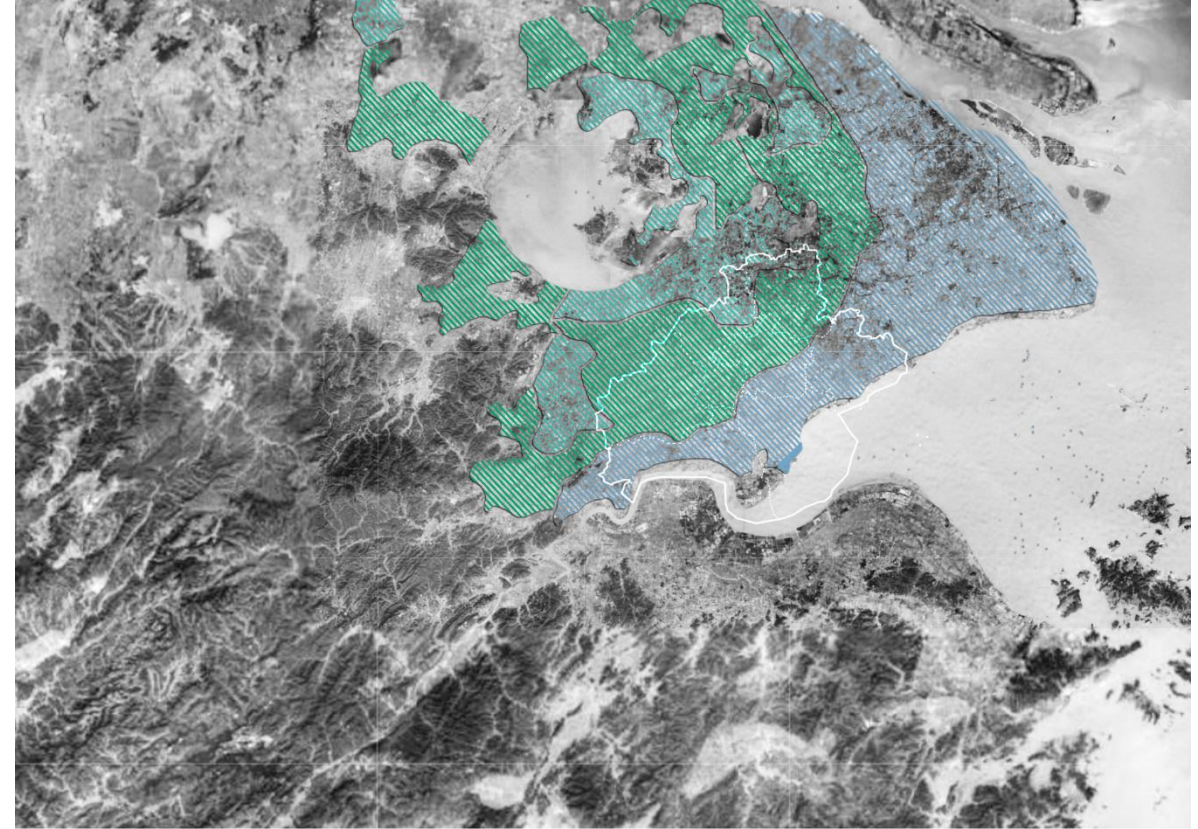
3. Identity Analysis

3. Identity Analysis

Nature



Jiaxing and surrounding water bodies



Soil type of Jiaxing

Source: Shao, Y., Chen, H., & Hu, L. (2019). Recognition and Characteristics Interpretation of Urban-Rural Cultural Heritage Based on Regional Culture: The Case of Jiaxing, Zhejiang Province.

3. Identity Analysis

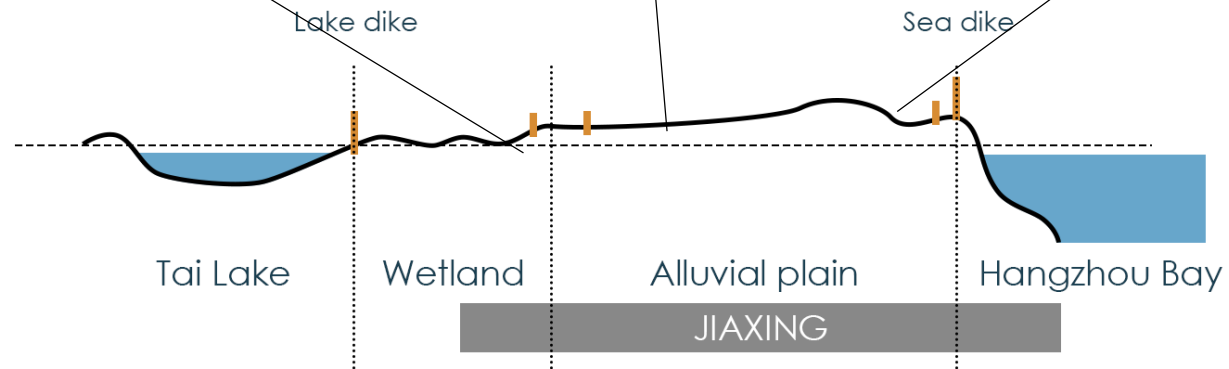
Landscape and Agriculture



Wetland lake area

Polder area

Sea dike area

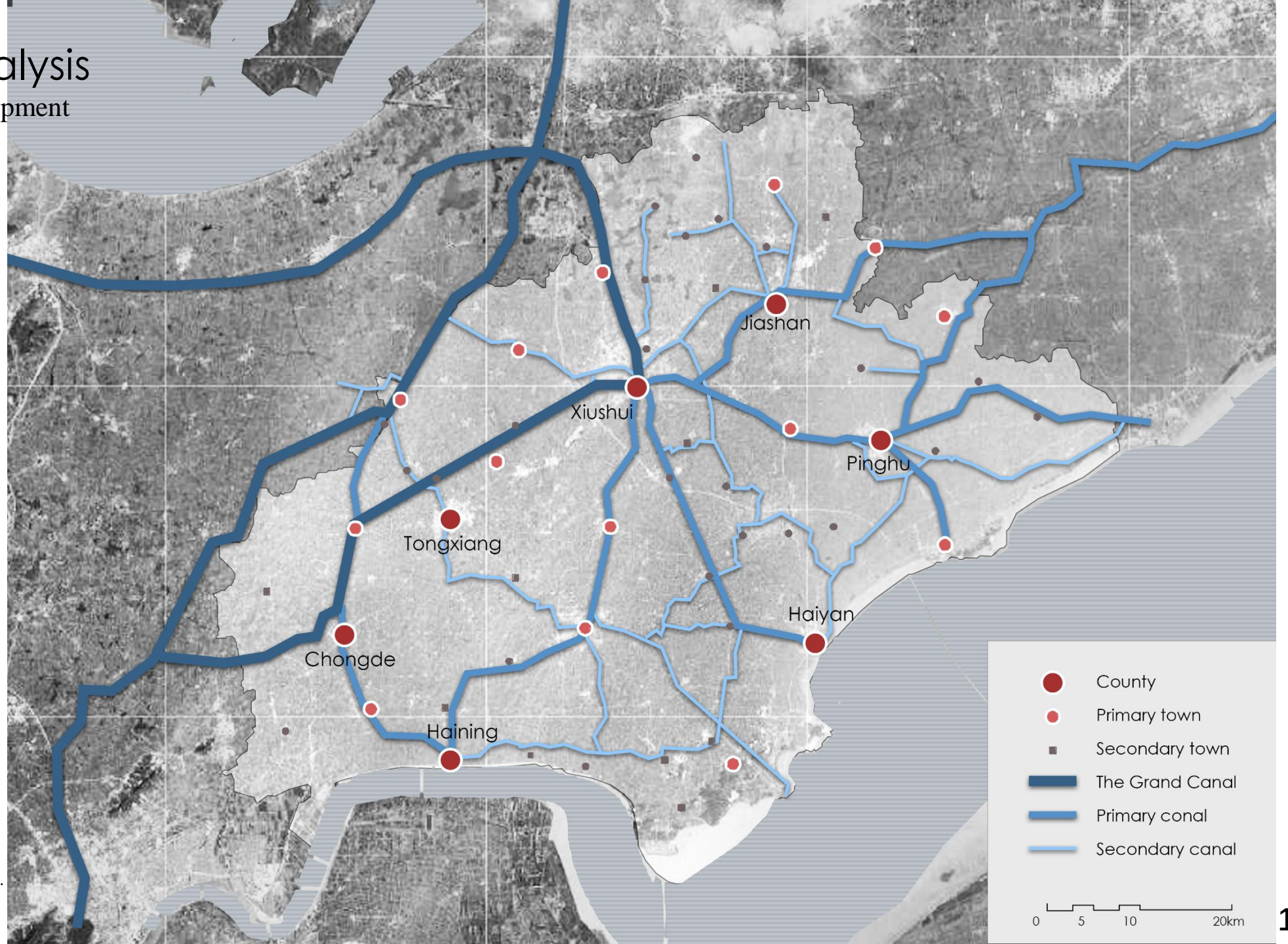


Topographic section of Jiaxing and different landscapes

Source: Shao, Y., Chen, H., & Hu, L. (2019).

3. Identity Analysis

Canals and urban development



Jiaxing traditional waterways and town distribution

Source: Shao, Y., Chen, H., & Hu, L. (2019).

3. Identity Analysis

Culture



Net Boat Festival

Photographer: Xu Yu, People News, http://paper.people.com.cn/rmrbhwb/html/2015-04/16/content_1554598.htm, 2015-04-16

Cultural Landscape Inspiration for Changqian Rver, Pinhu River and Jiashan River

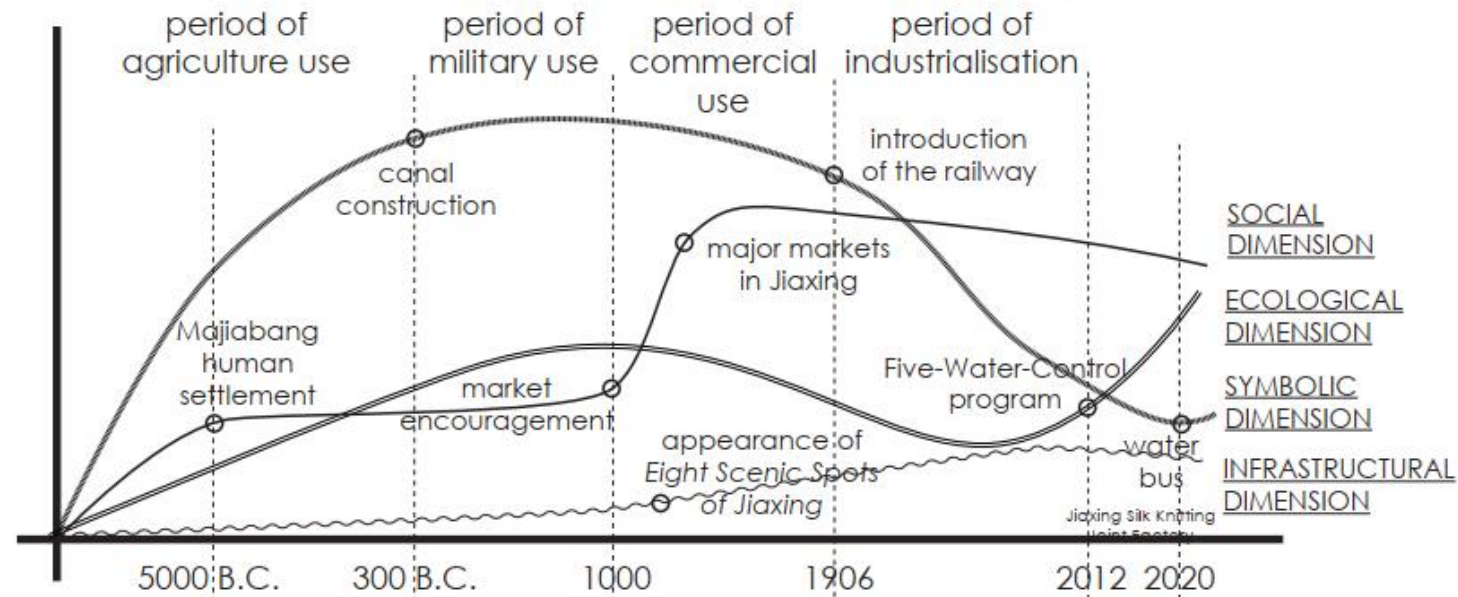


The Eight Scenes of Jiaxing (from the Tang dynasty onwards)

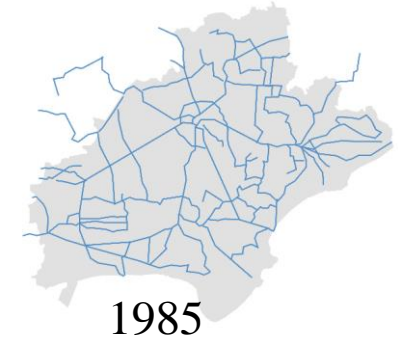
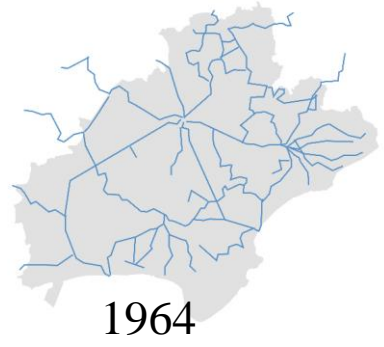
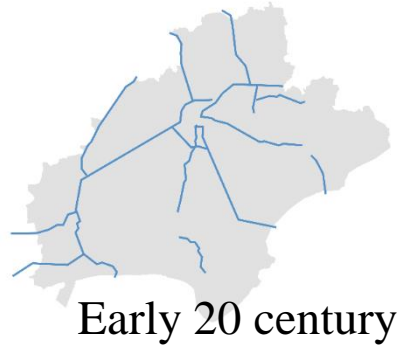
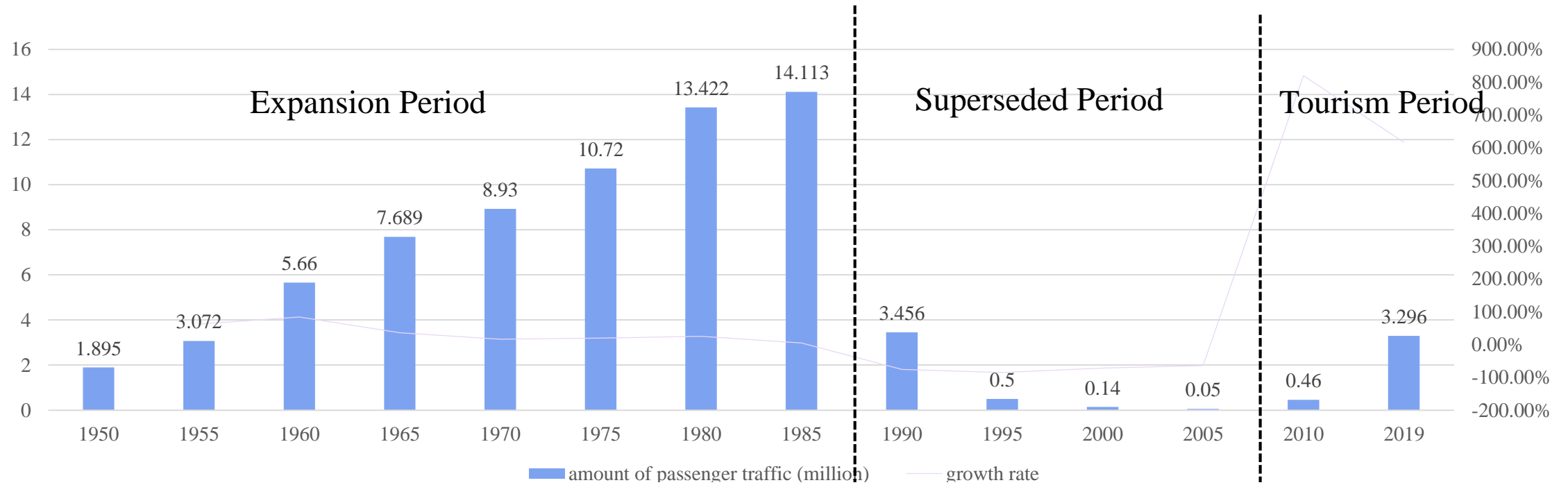
Source: KI Studio, Jiaxing City Concept, <https://www.kistudio.com.au/project/jiaxing-city-concept-nine-rivers-for-one-heart/>, 2020

3. Identity Analysis

Conclusion



3. Identity Analysis

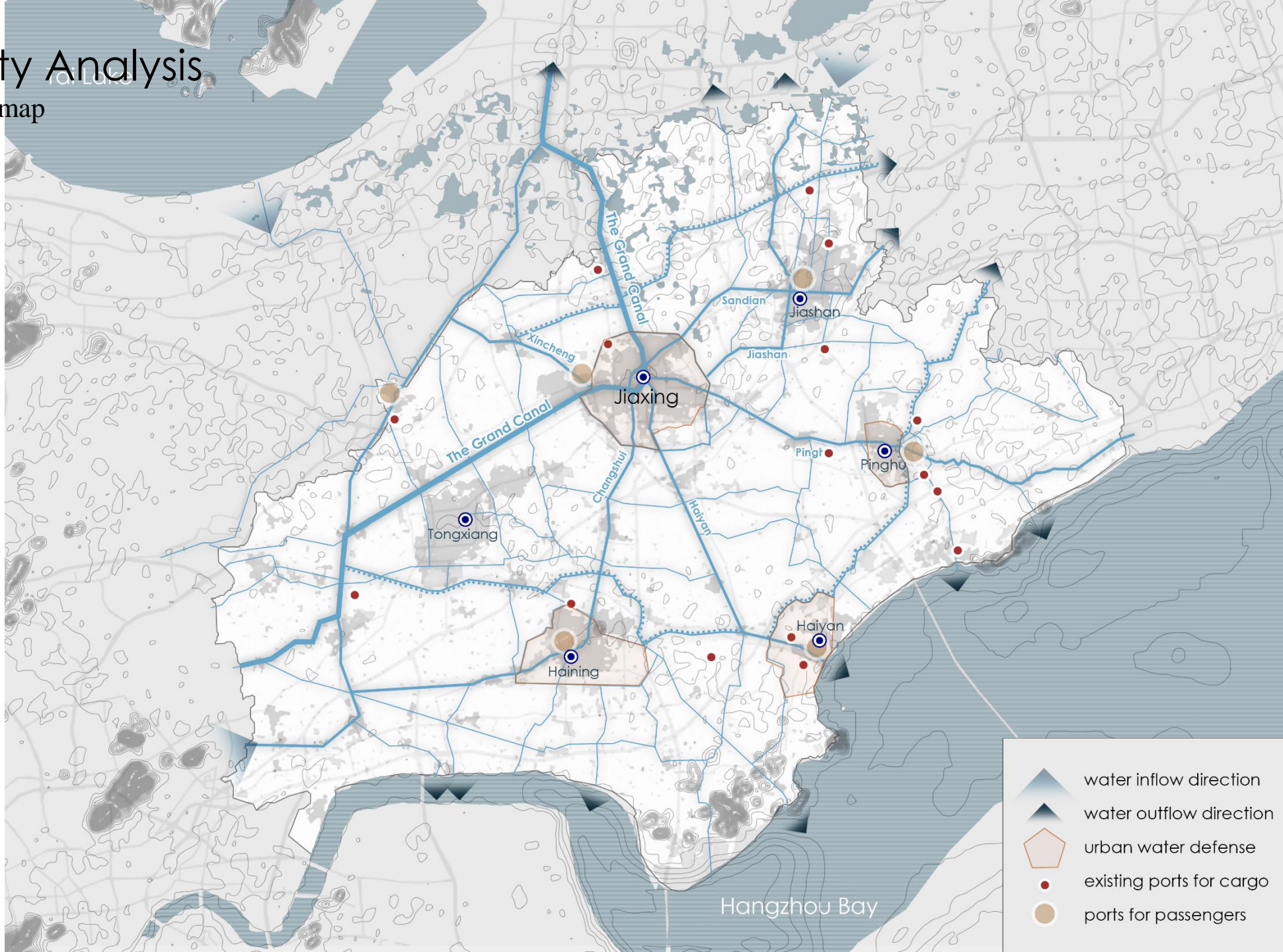


Jiaxing Waterborne Passenger Transport Development

Source: Shanghai Tongji Urban Planning and Design Research Institute. (2020). Jiaxing Waterborne Passenger Transport Planning Special Study Report

3. Identity Analysis

Current water map



3. Identity Analysis

Water infrastructure



Old photo of Jiaxing Ship Passenger Terminal
Photographer: Pang Yiyang, Jiaxing Museum



Current situation of Jiaxing Ship Passenger Terminal
Source: Baidu Map



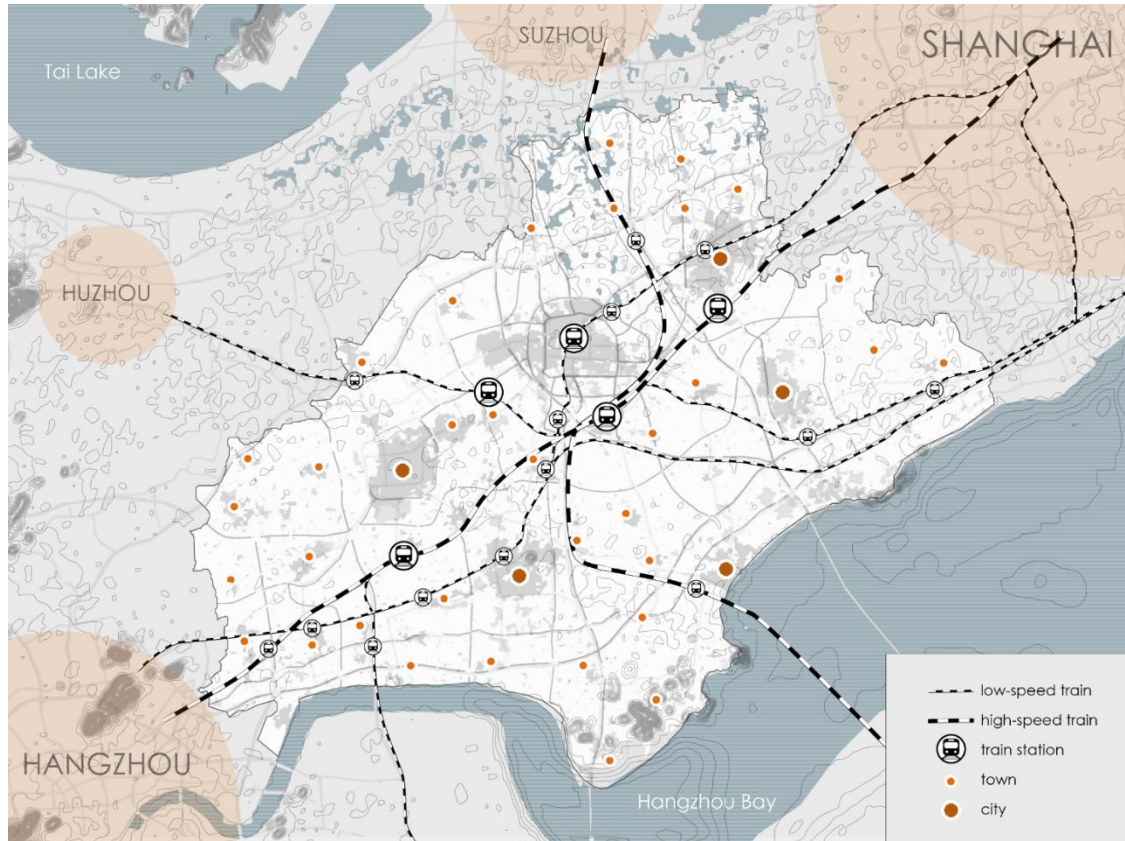
Old photo of Dongzha
Photographer: Pang Yiyang, Jiaxing Museum



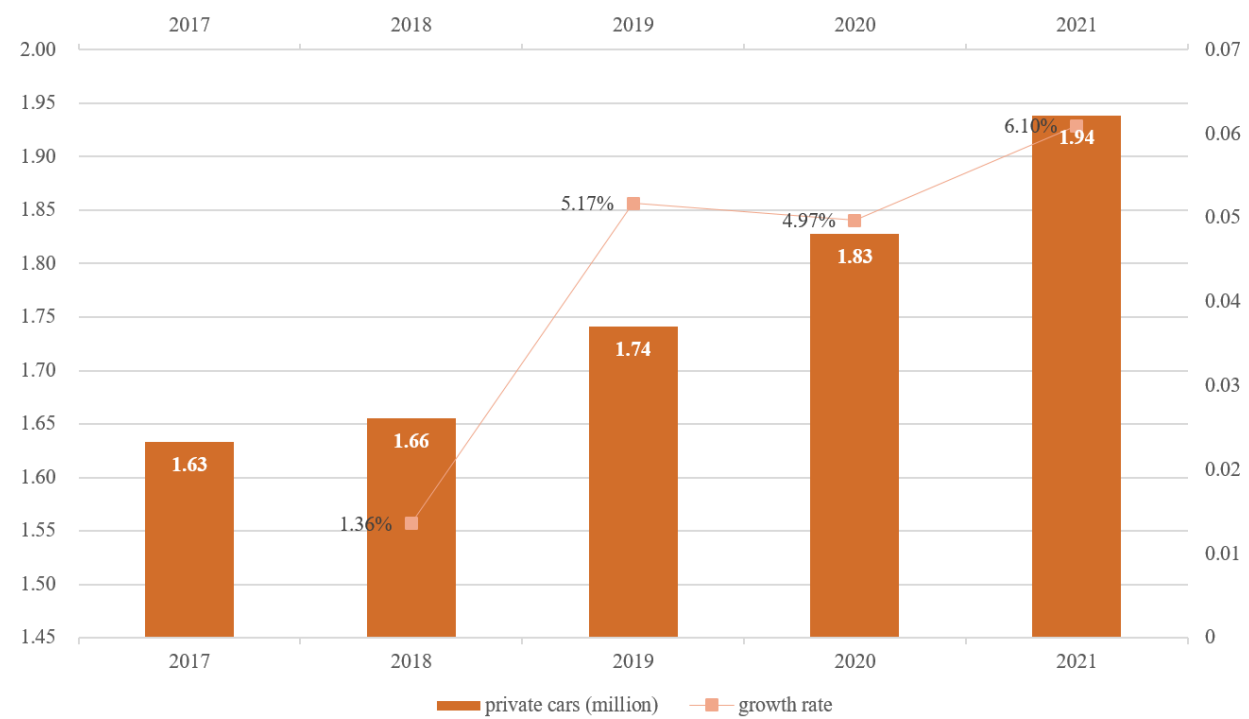
Current situation of Dongzha
Photographer: Shen Jianfang,
<https://baijiahao.baidu.com/s?id=1718106918549808073&wfr=spider&for=pc>, 2021-12-03

3. Identity Analysis

Alternative transport



Jiaxing Railway System

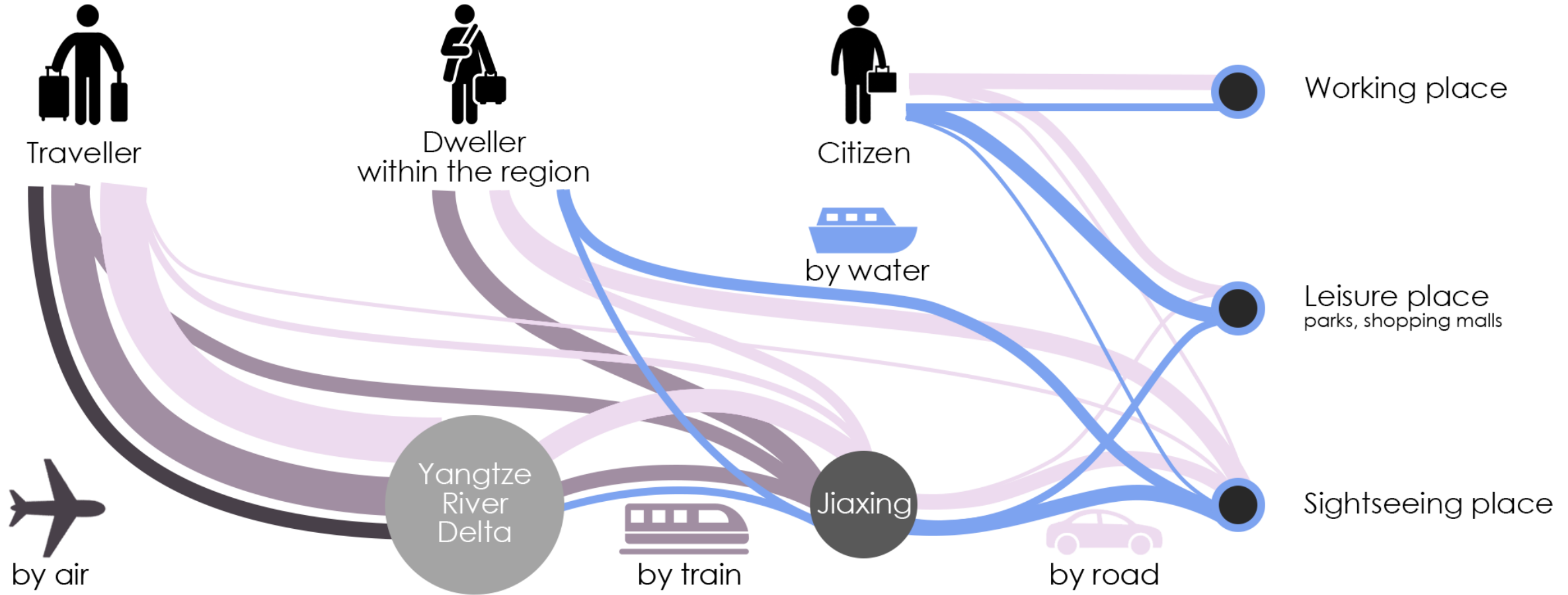


Jiaxing private cars amount

Source: Jiaxing City Traffic Annual Report Series Interpretation, 2022

3. Identity Analysis

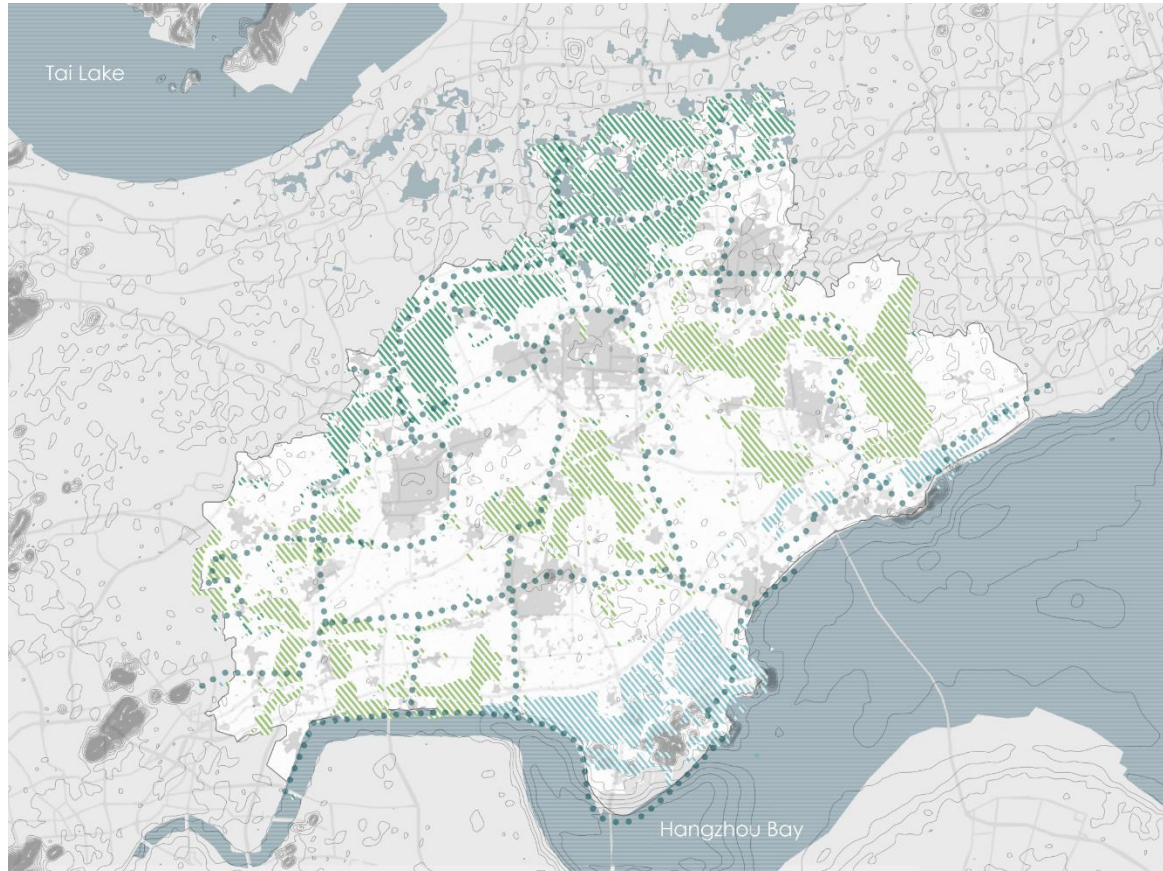
My concept



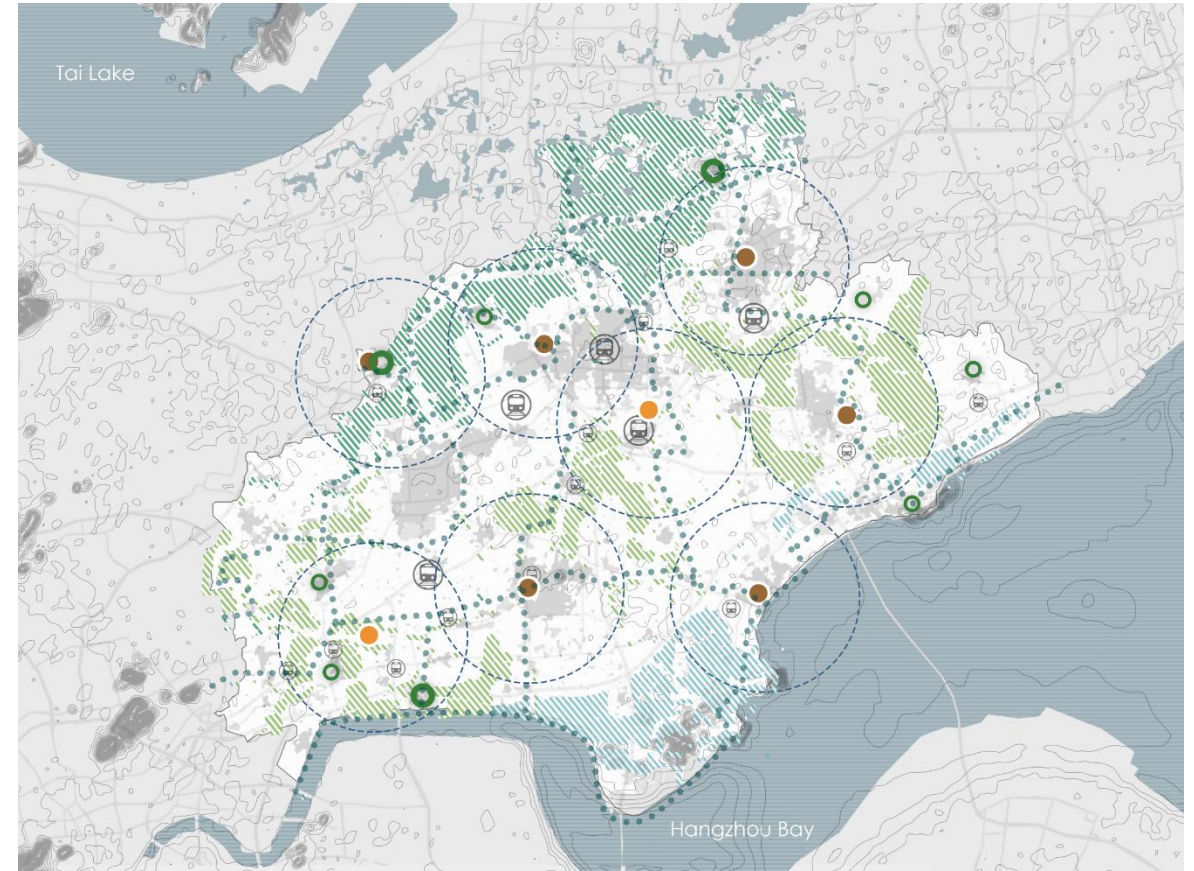
4. Regional Vision

4. Vision of Water City

Potential waterways and terminals



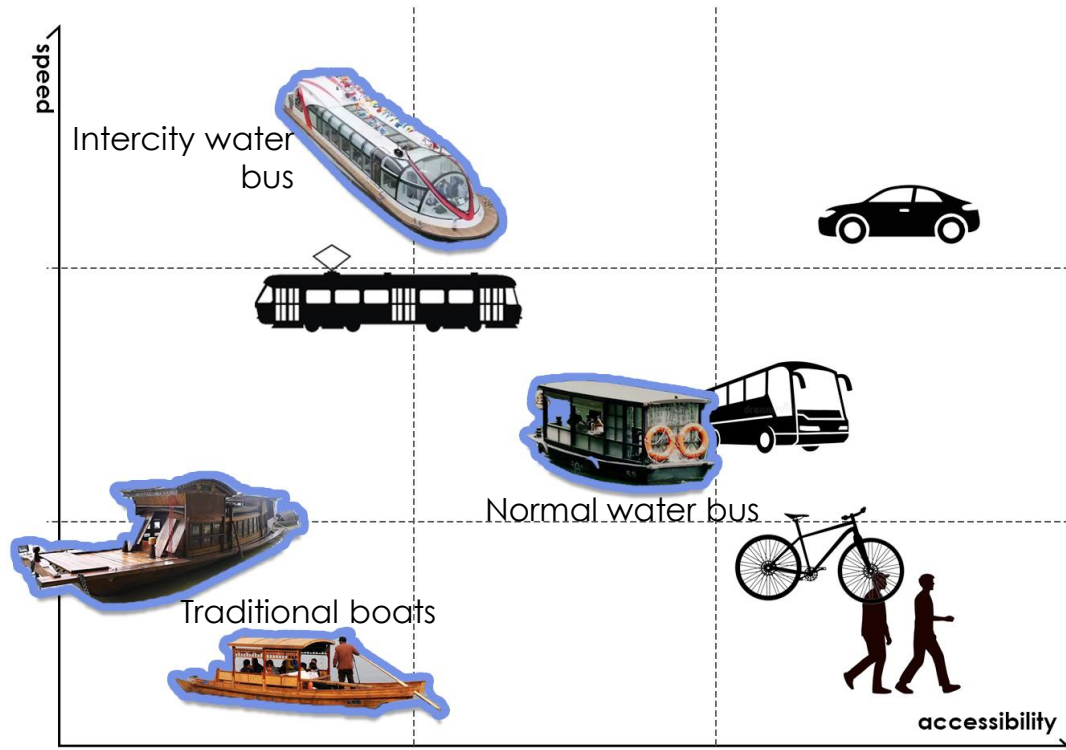
Potential water ways



Potential water terminals

4. Vision of Water City

Vehicles



Potential Vehicles



A passenger port in Jiaxing today

Source: Zhejiang Online, https://guoqi.zjol.com.cn/yw/202201/t20220129_23715936.shtml, 2022-01-29



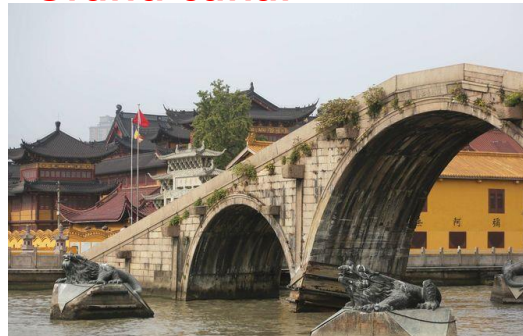
A passenger port Jiaxing

Source: Shanghai Tongji Urban Planning and Design Research Institute. (2020). Jiaxing Waterborne Passenger Transport Planning Special Study Report

4. Vision of Water City

Stage 1

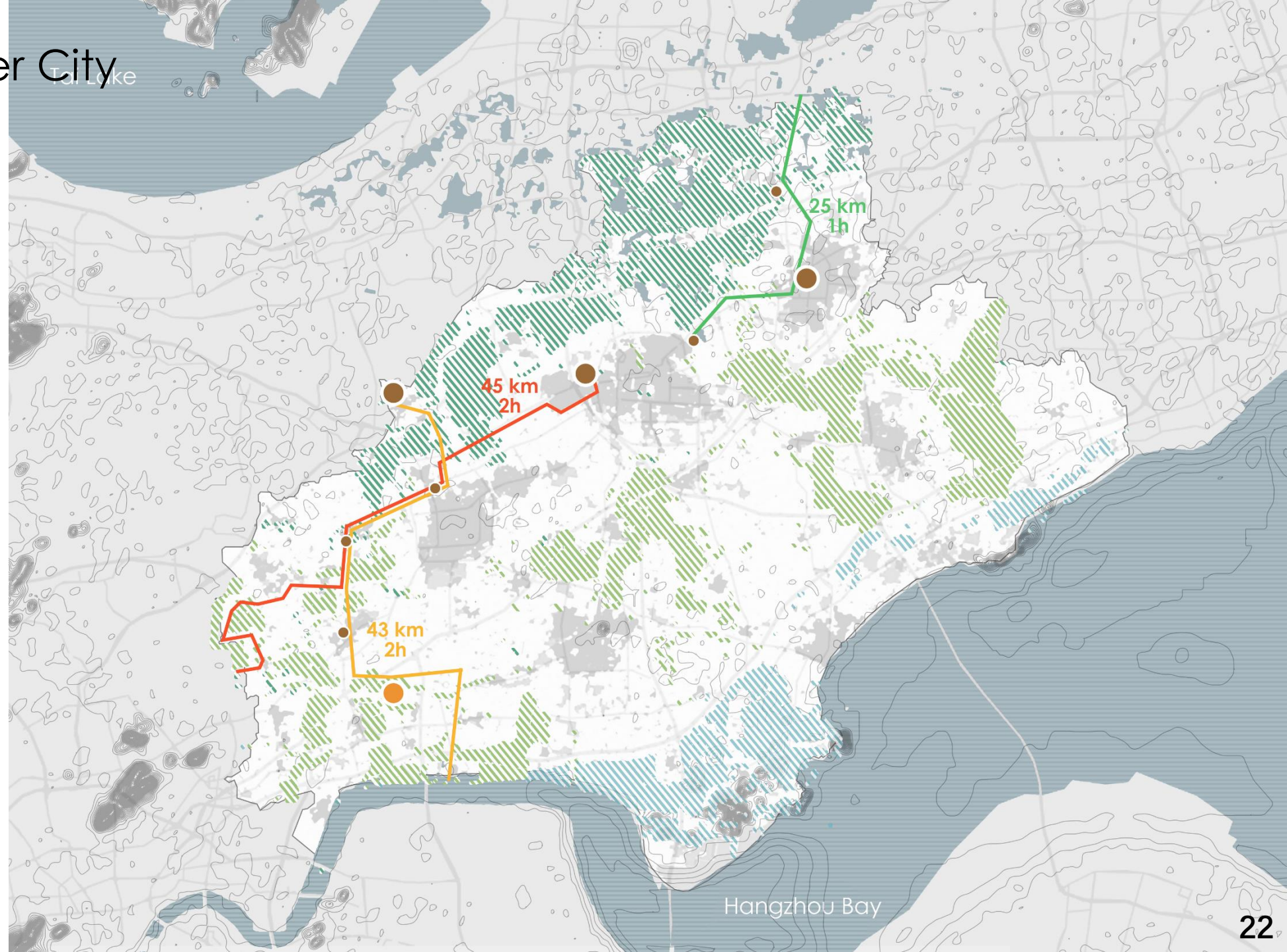
Grand canal



Wuzhen



Xitang



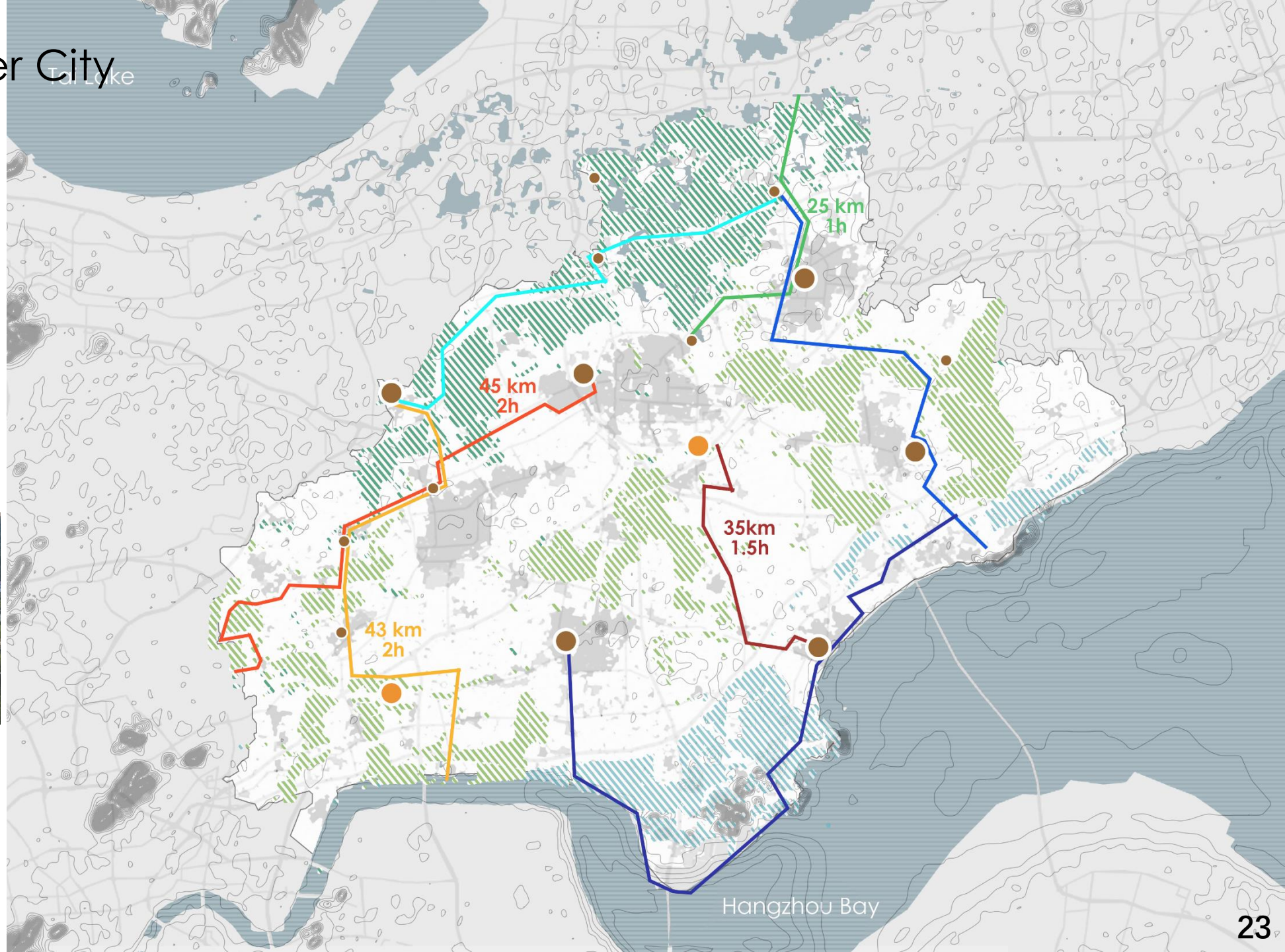
4. Vision of Water City

Stage 2

Wetland lake area



Sea dike are-Jiulong



4. Vision of Water City

Stage 3

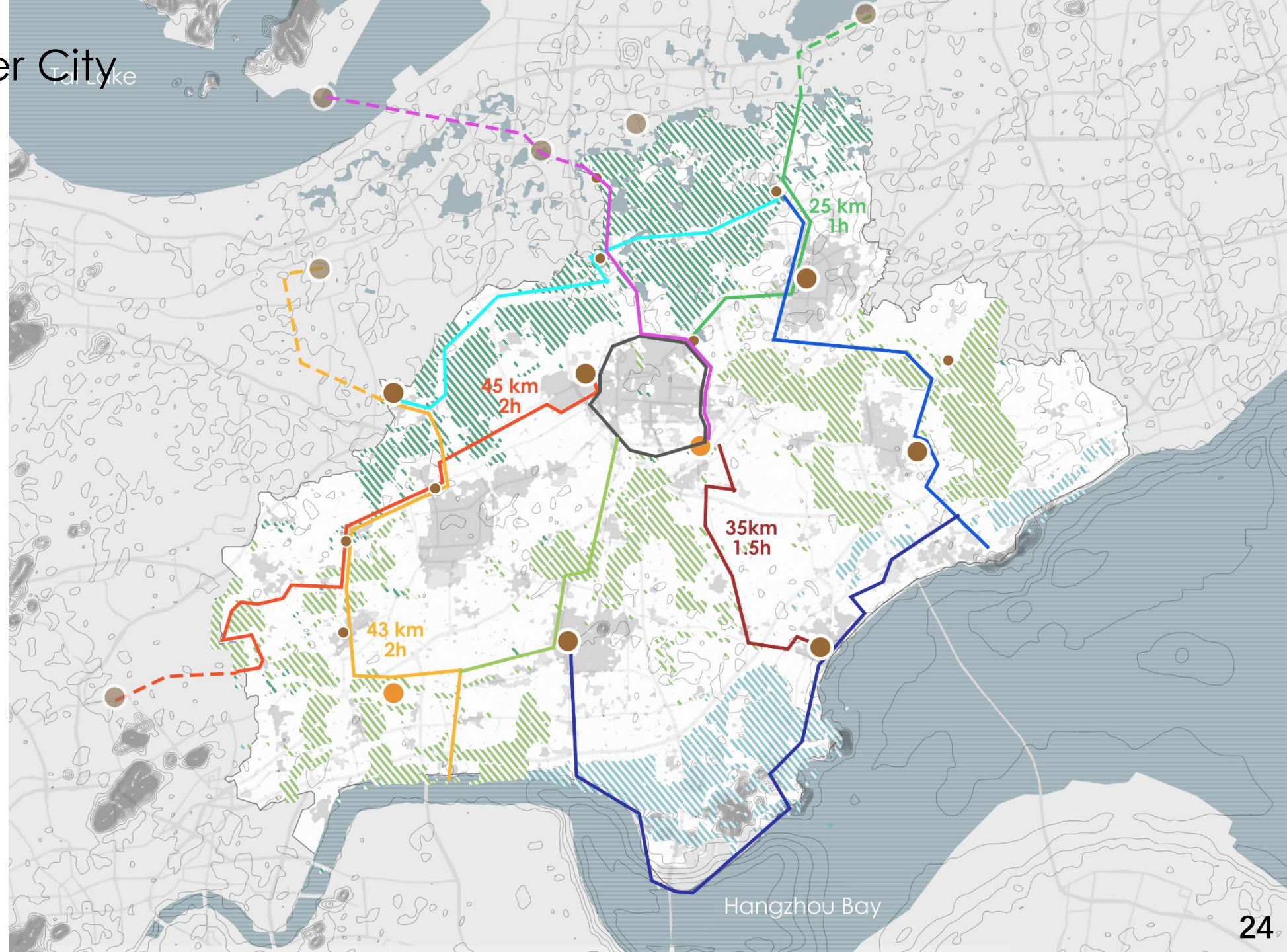
Suzhou - Dongshan



Huzhou - Nanxun

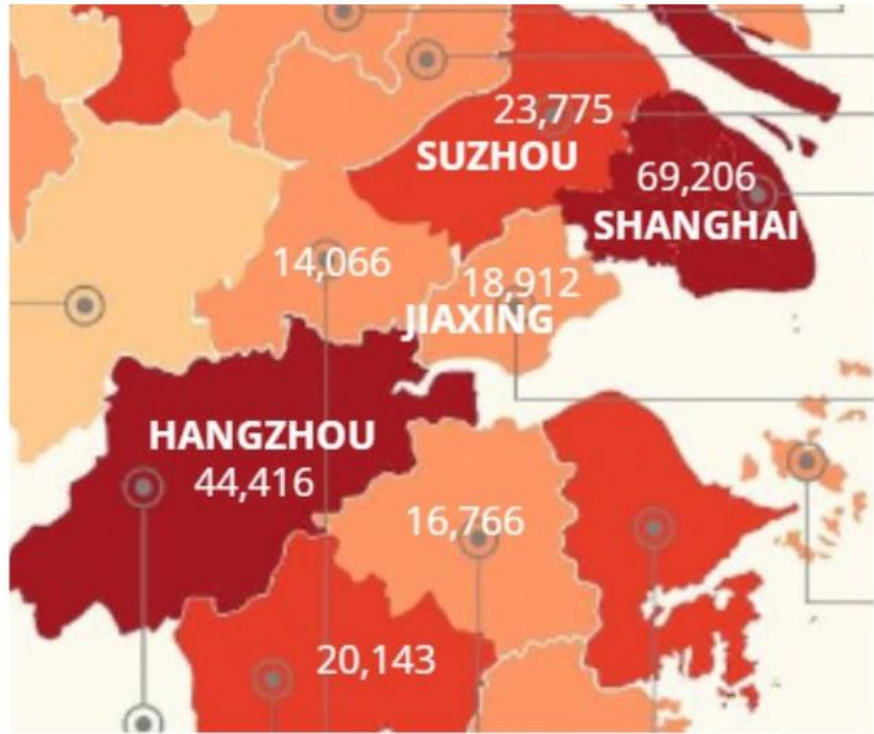


Hangzhou - Tangqi

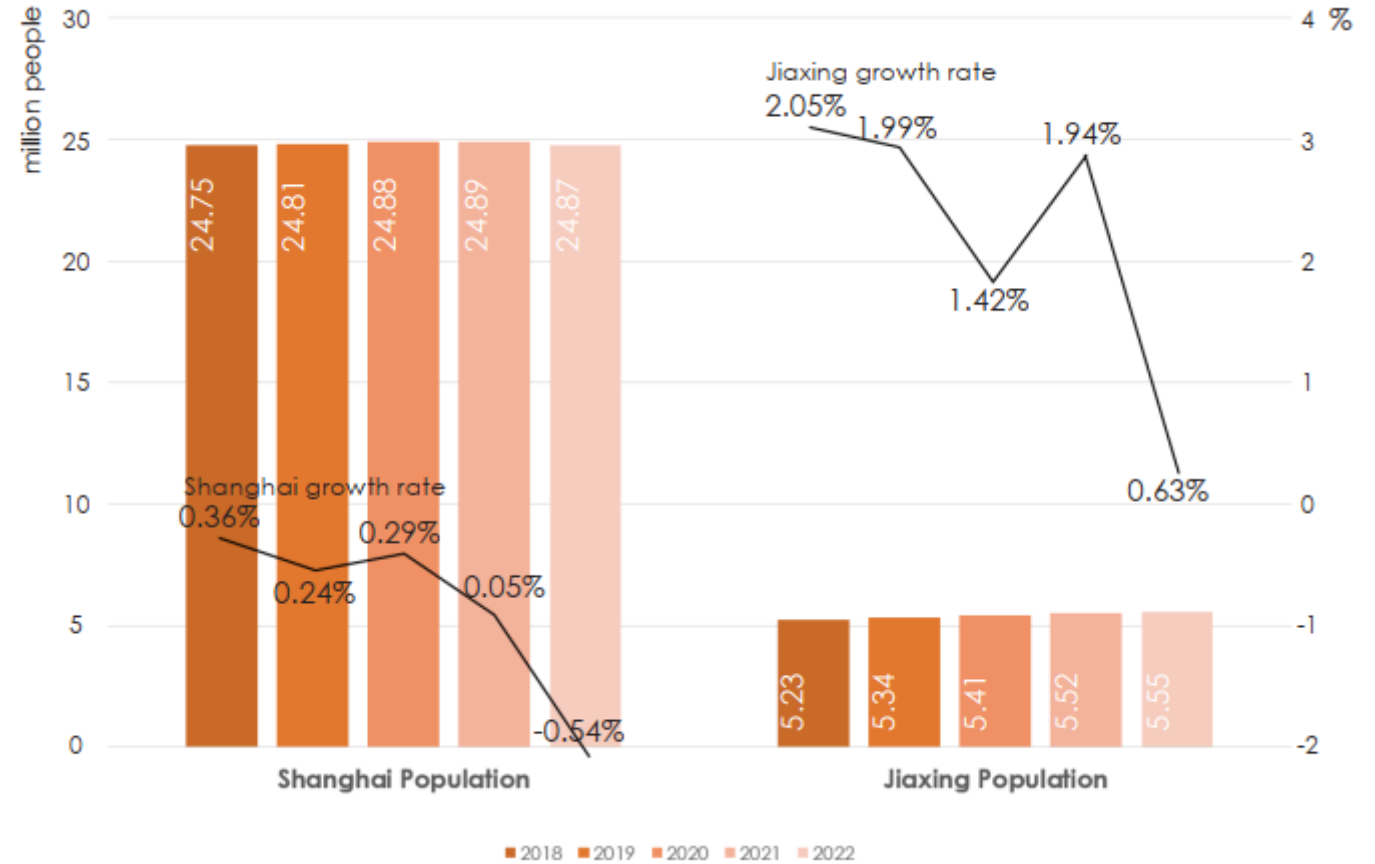


4. Vision of Water City

Economic Value



Average prices of second-hand houses in 2022

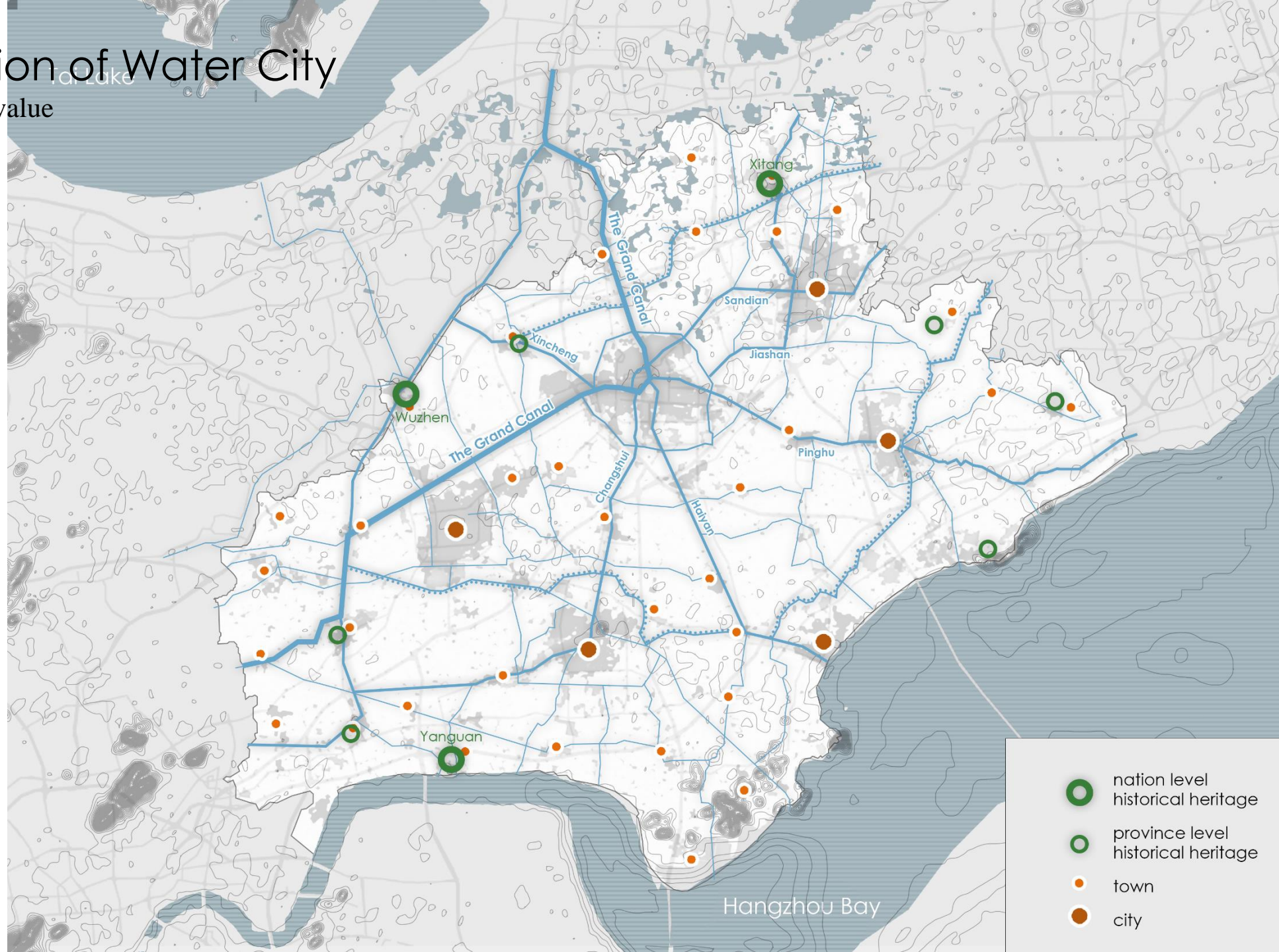


Population flow in Shanghai and Jiaxing

Source: China Statistics Bureau

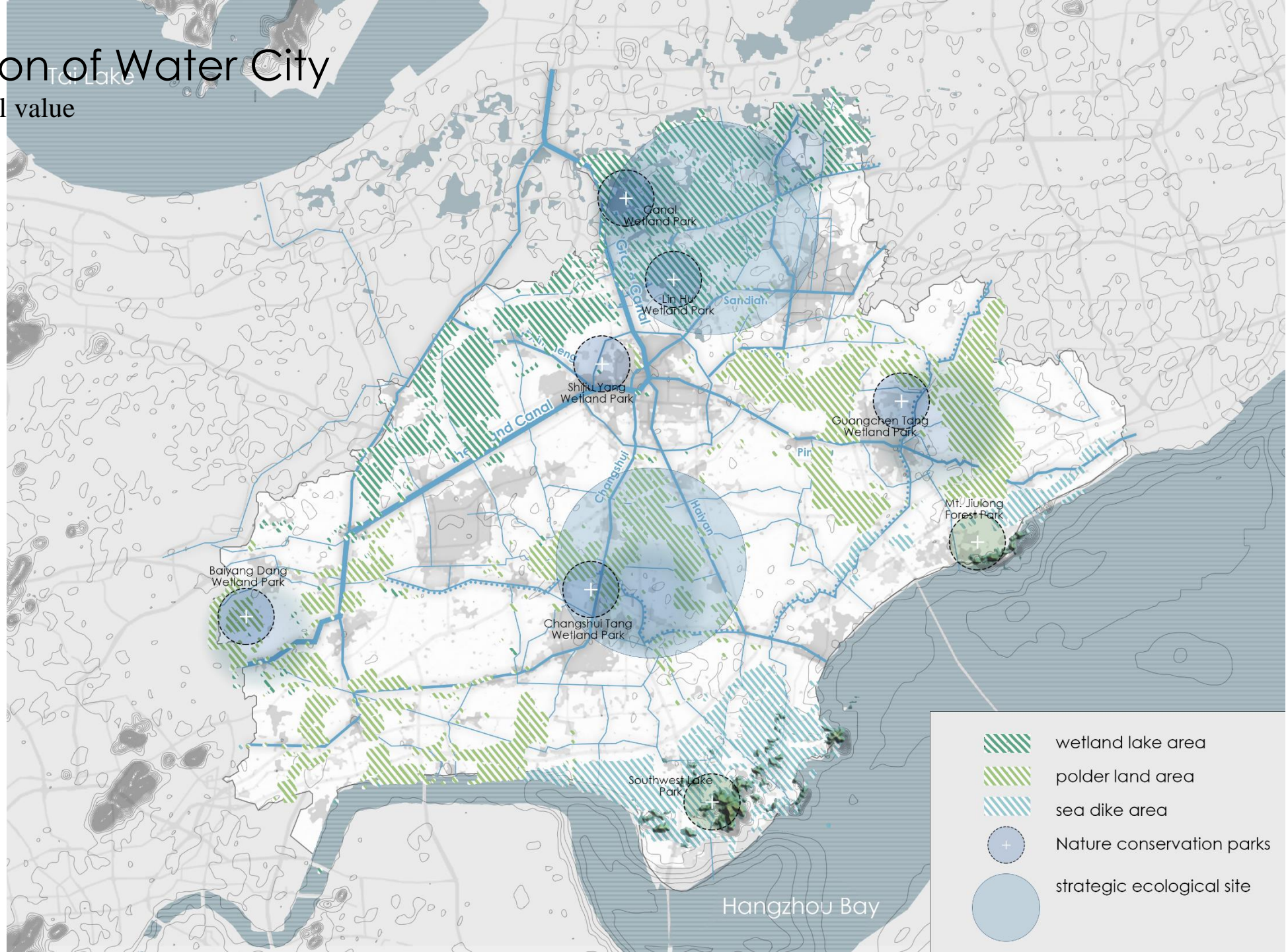
4. Vision of Water City

Cultural value



4. Vision of Water City

Ecological value



5. City Strategies

5. Identity Building

Form



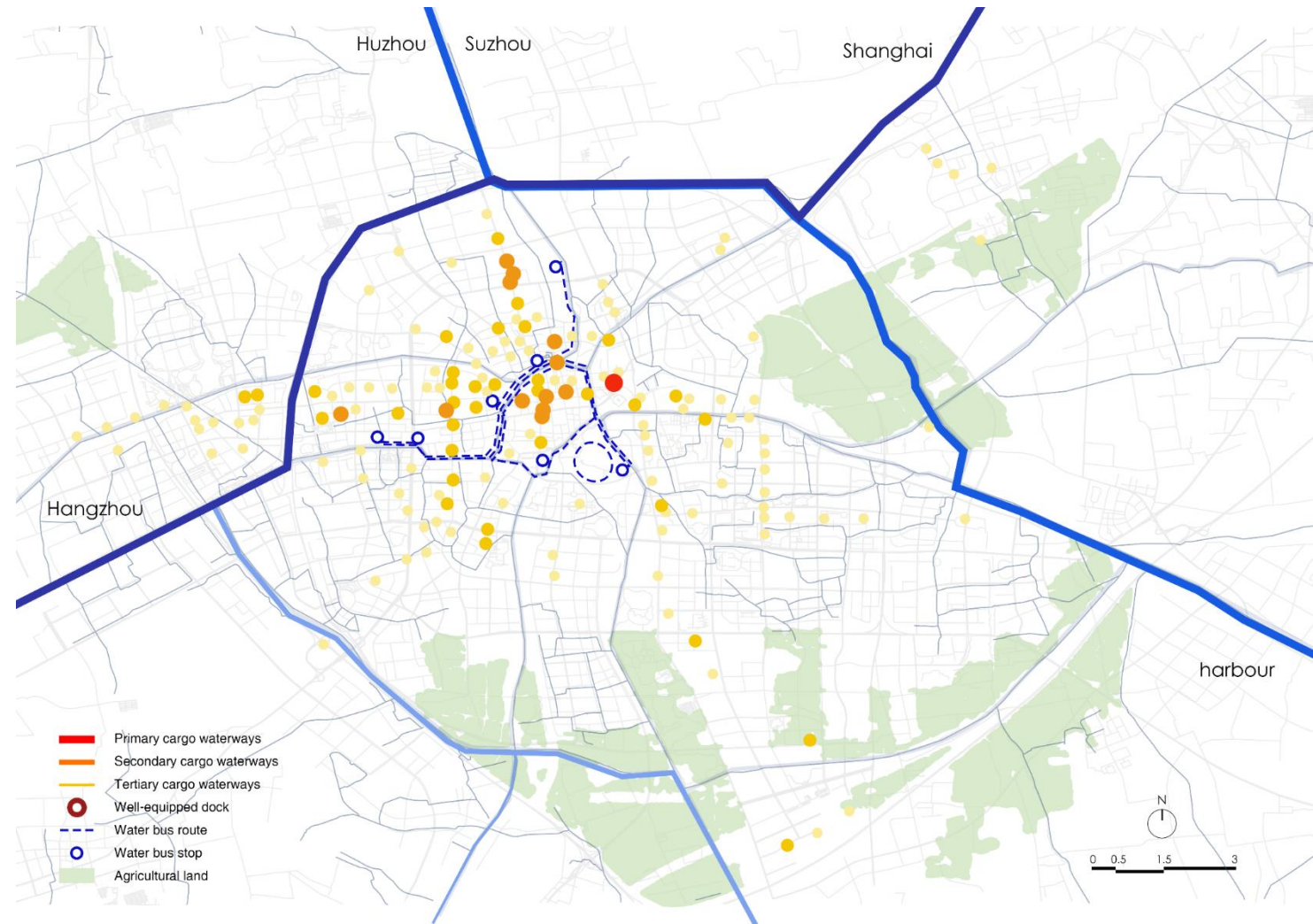
5. Identity Building

Form

	Jiaxing	Relevant requirements
Bus holdings (units/thousand person)	1.02	1.2
Bus route density (km/km ²)	2.4	3~4
Duplication of bus route network	3.79	1.25~2.5
Non-linear coefficient	1.8	≤1.4

Bus System in Jiaxing

Source: Shanghai Tongji Urban Planning and Design Research Institute. (2020). Jiaxing Waterborne Passenger Transport Planning Special Study Report

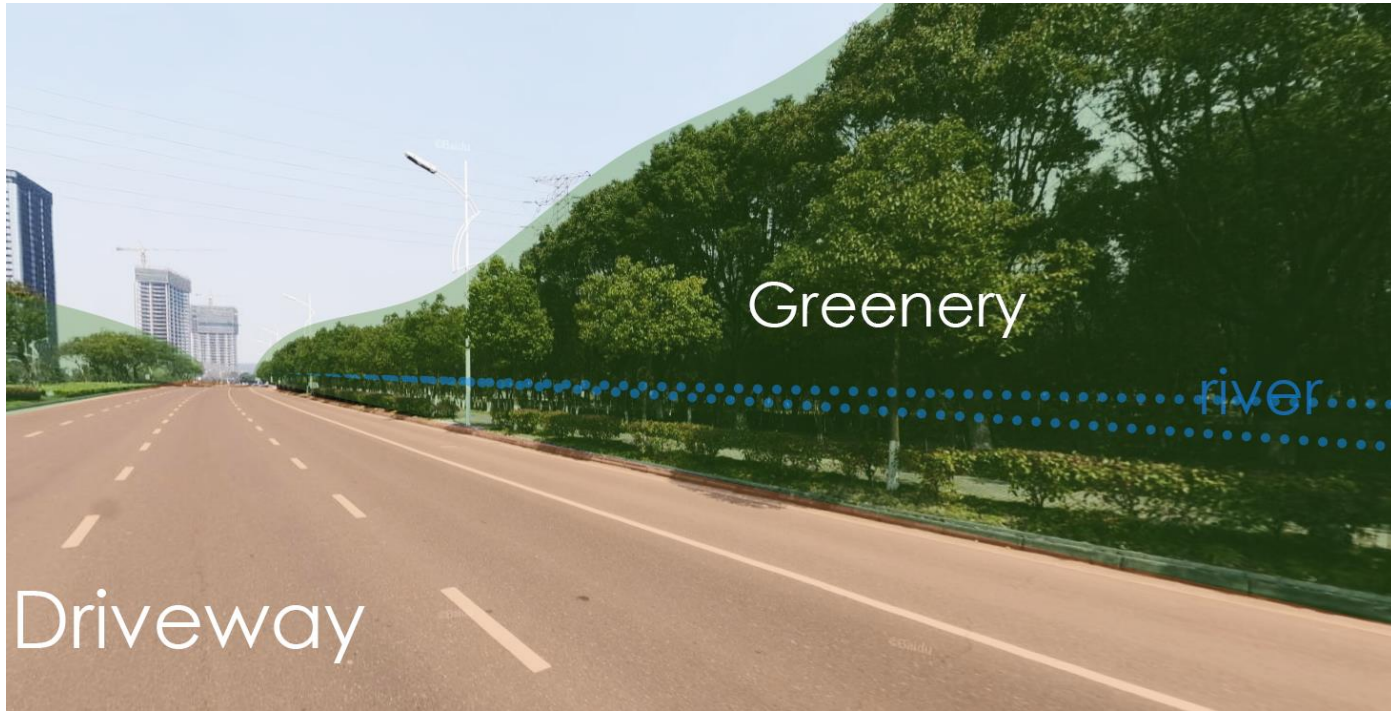


Bus Stops and Water bus routes

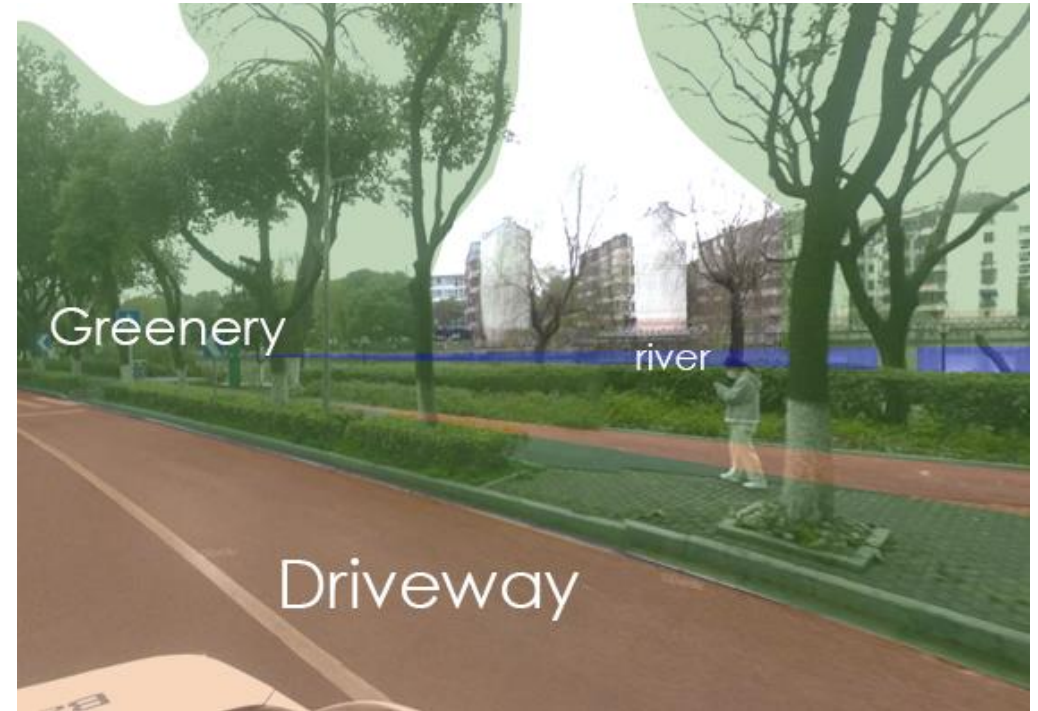
Source: Shanghai Tongji Urban Planning and Design Research Institute. (2020). Jiaxing Waterborne Passenger Transport Planning Special Study Report

5. Identity Building

Form



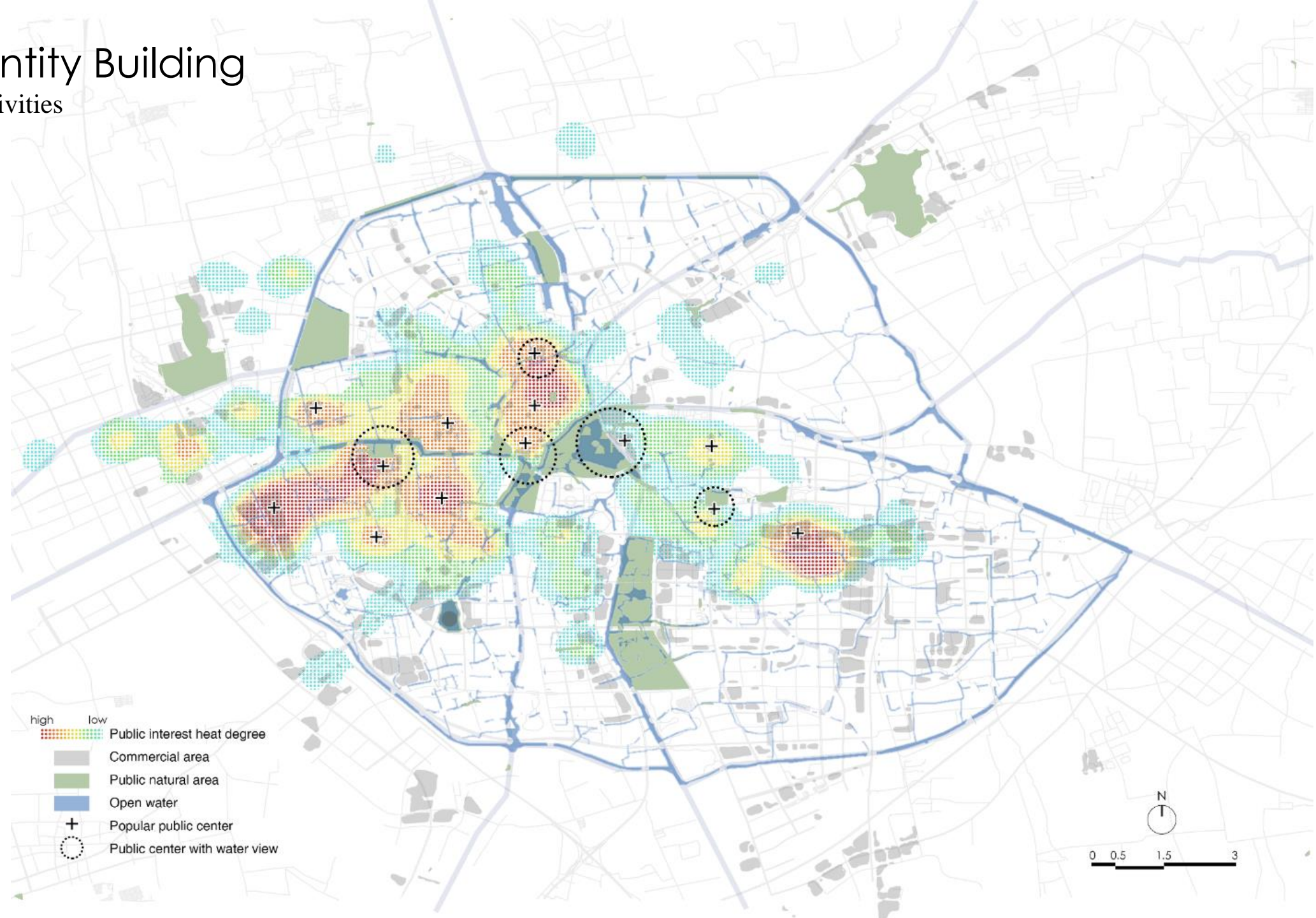
Nanhu Avenue



West Ring Road

5. Identity Building

Social activities



5. Identity Building

Social resources



Pinghu City Waterfront Interchange Greenway (Phase I)

Source: Jiaxing Online News, https://m.thepaper.cn/baijiahao_19673534



Fishing

Photographer: Leafatfat, 150127521, from RED

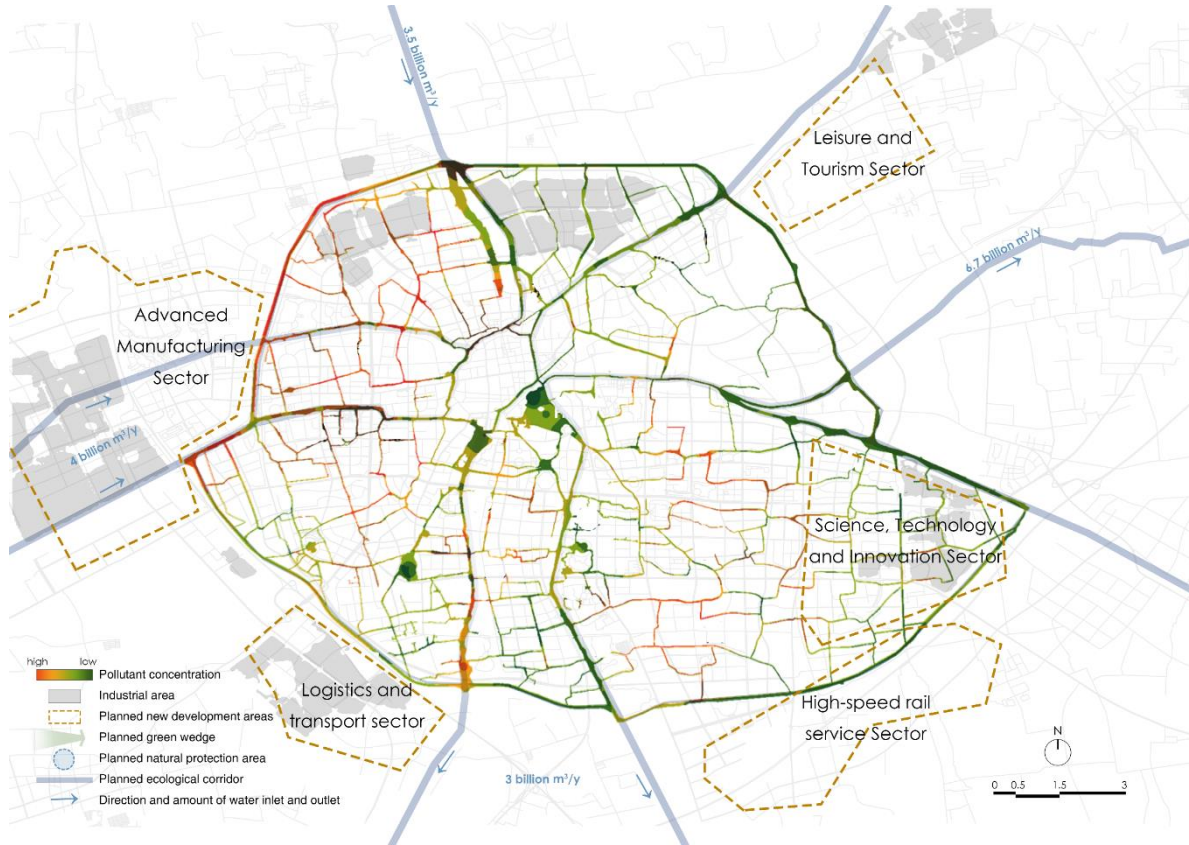


Cycling on greenway

Source: Jiaxing Rural and Urban Construction

5. Identity Building

Other problems

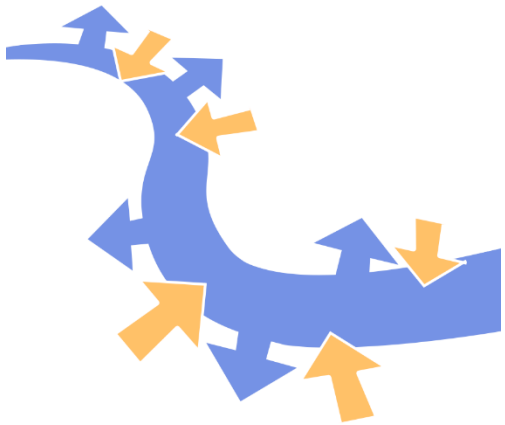


Water Pollution Map

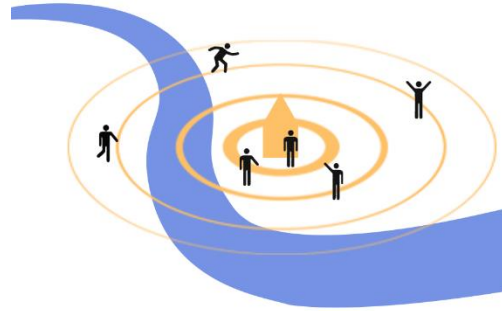


Location of Cultural Heritage Protection Projects

5. Identity Building Strategies



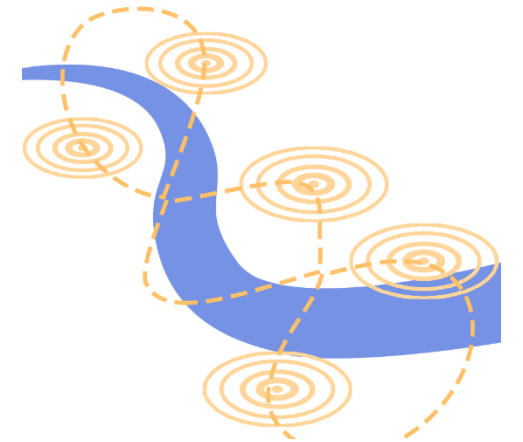
Strategy 1
Equitable Accessibility



Strategy 2
Revitalized Activities



Strategy 3
Enhanced Eco-Functions



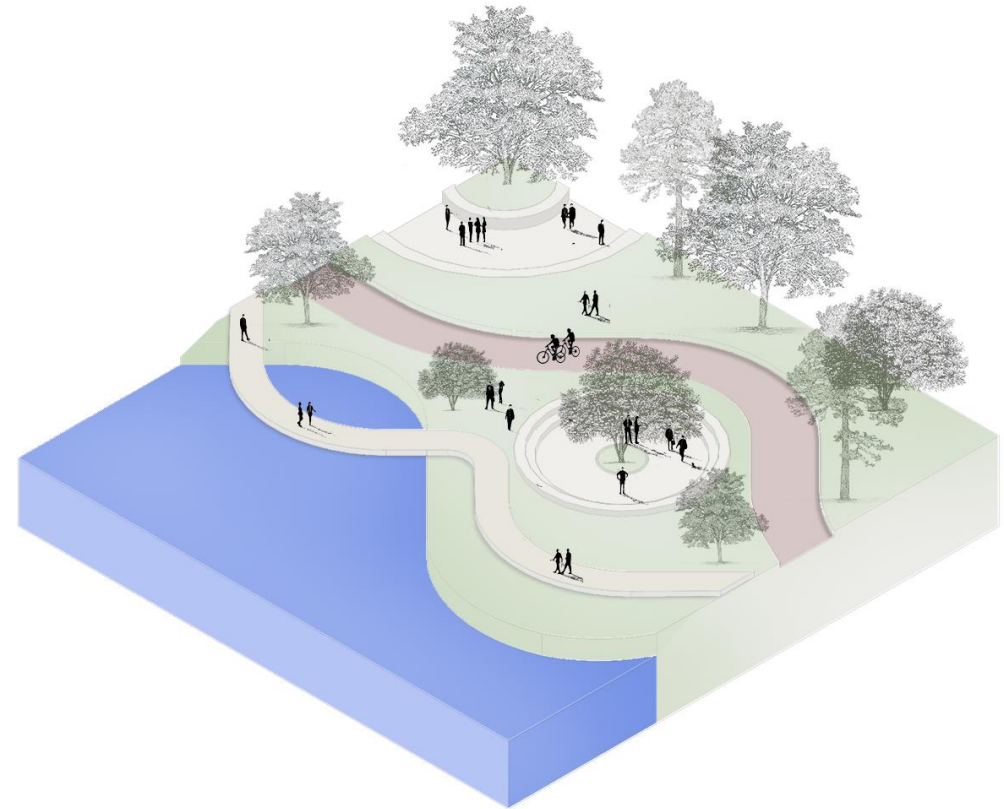
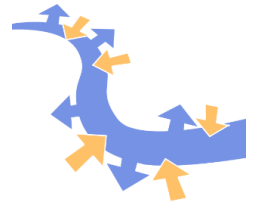
Strategy 4
Community Cohesion

5. Identity Building

Examples for strategy 1



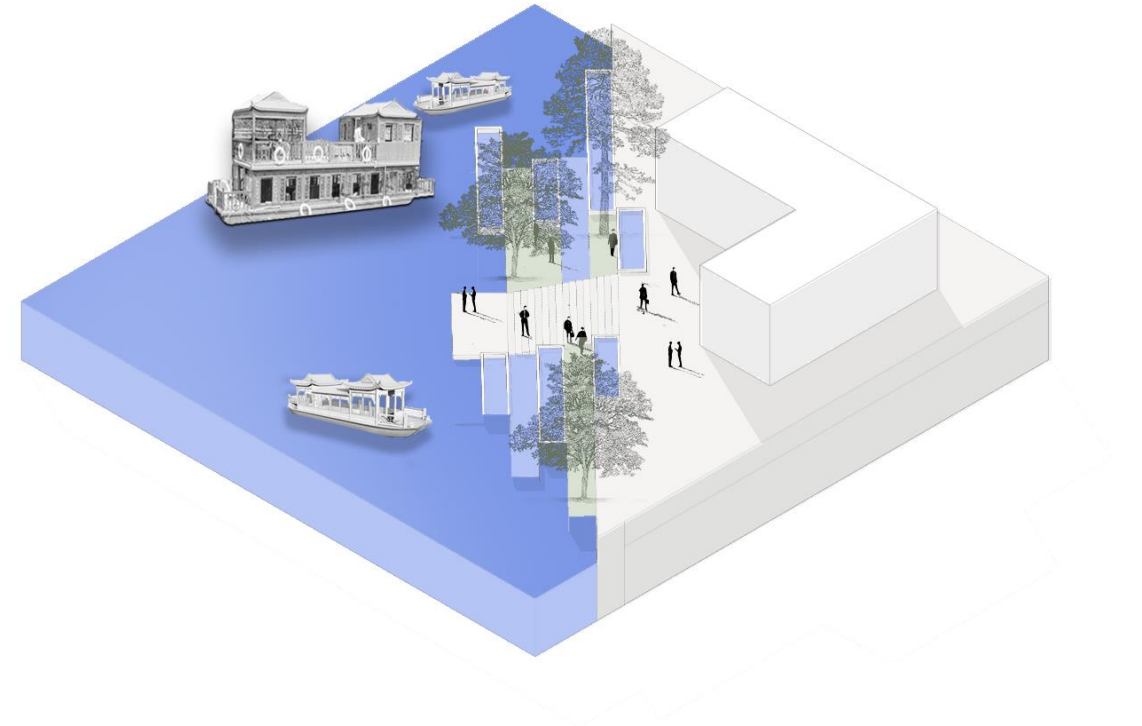
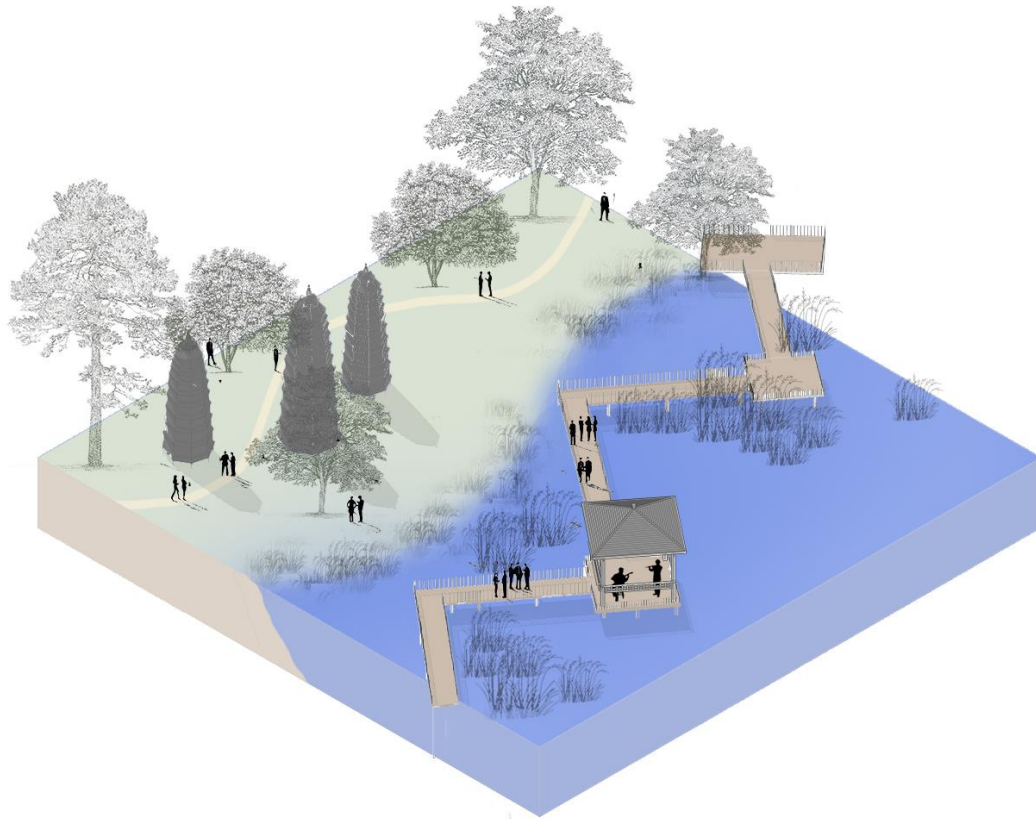
Strategy 1
Equitable Accessibility



5. Identity Building

Examples for strategy 2

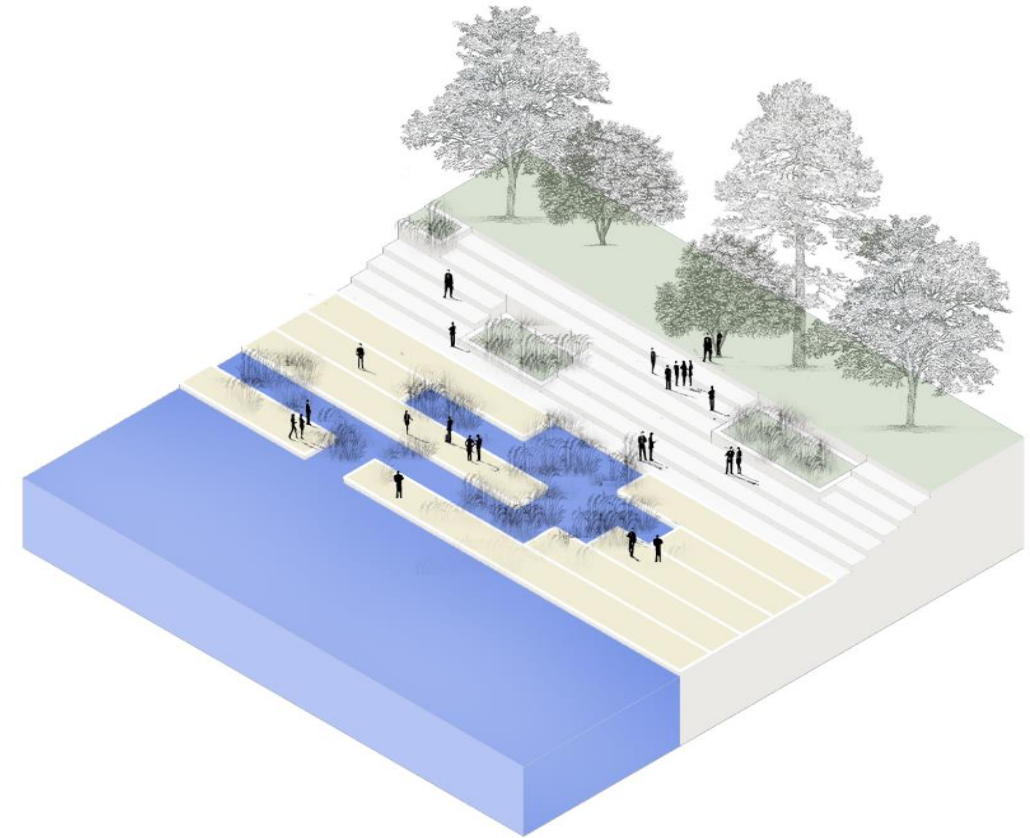
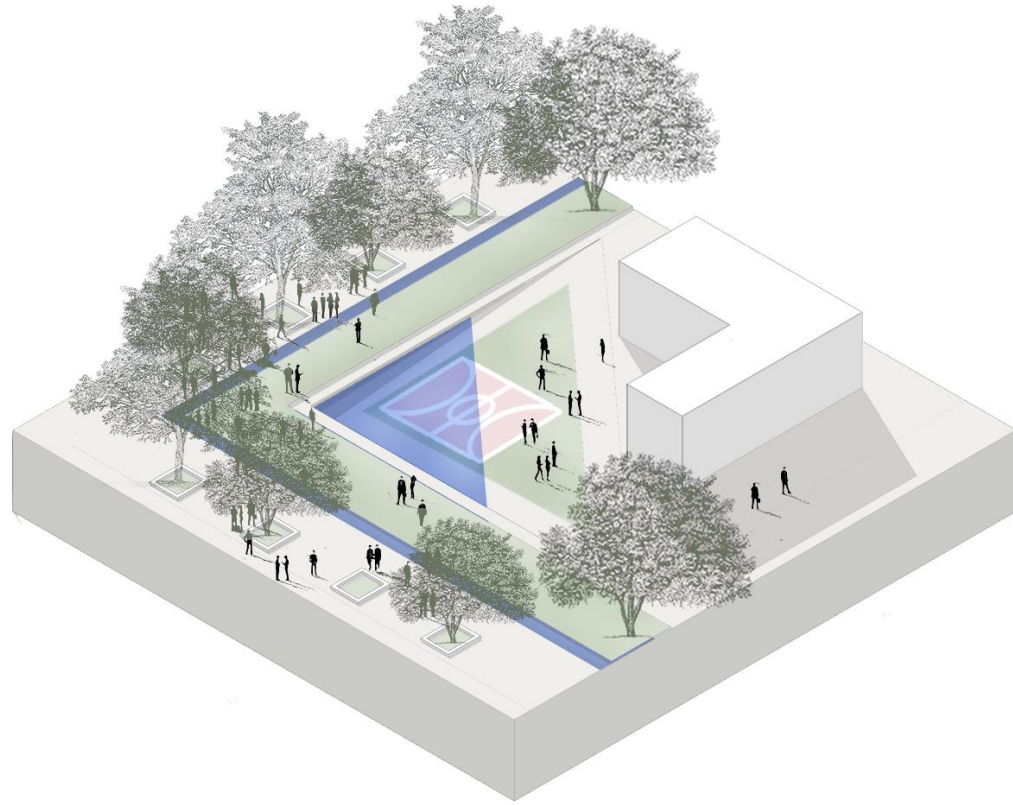
Strategy 2 Revitalized Activities



5. Identity Building

Examples for strategy 3

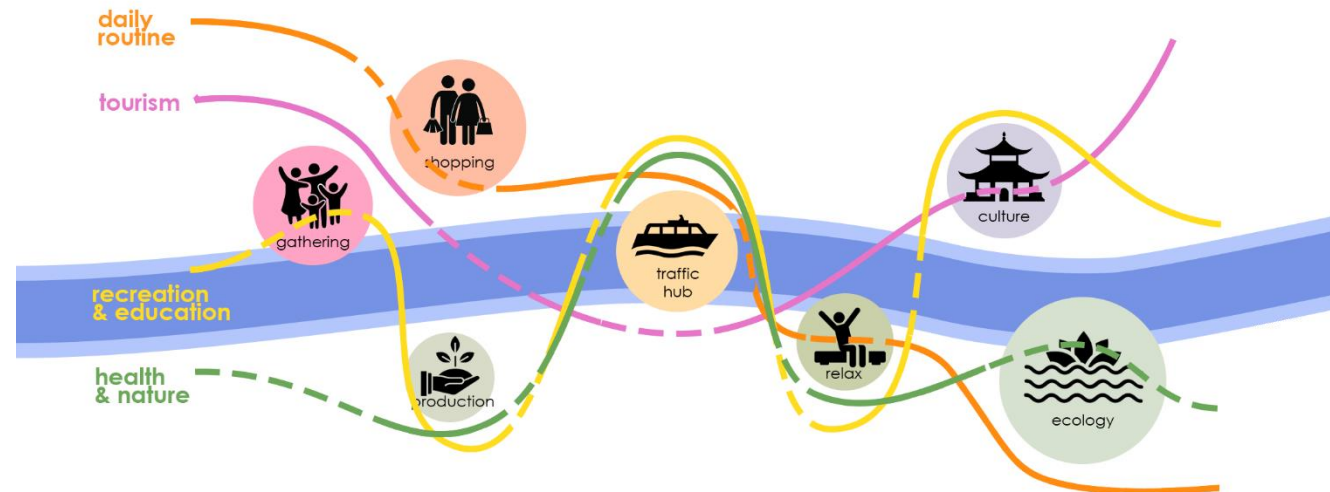
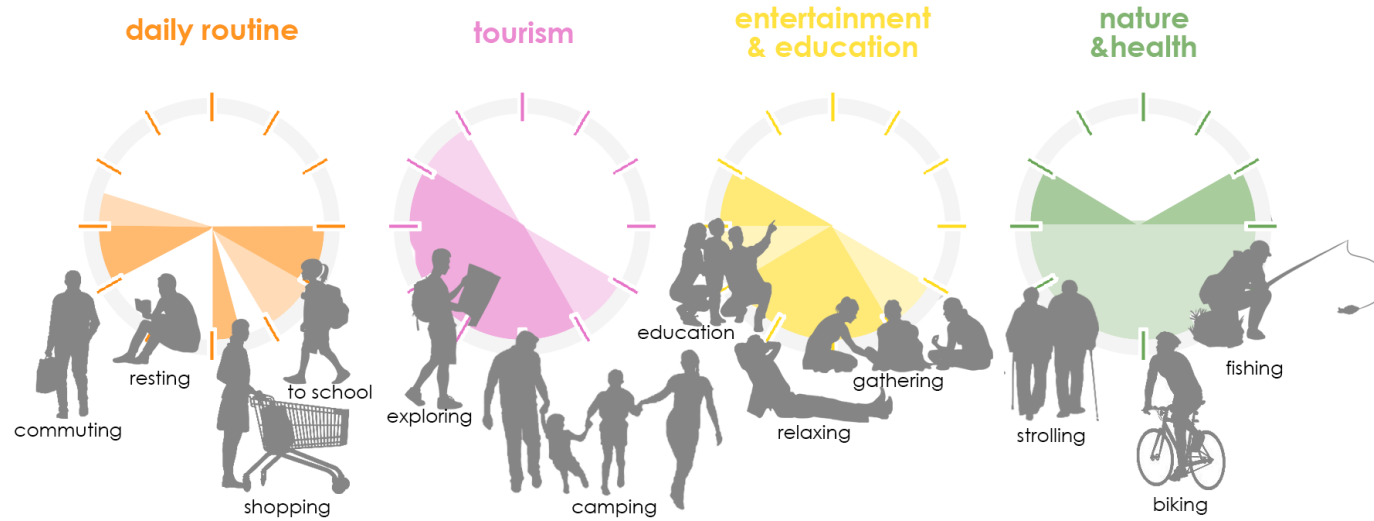
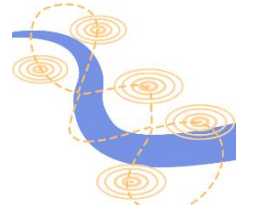
Strategy 3 Enhanced Eco-Functions



5. Identity Building

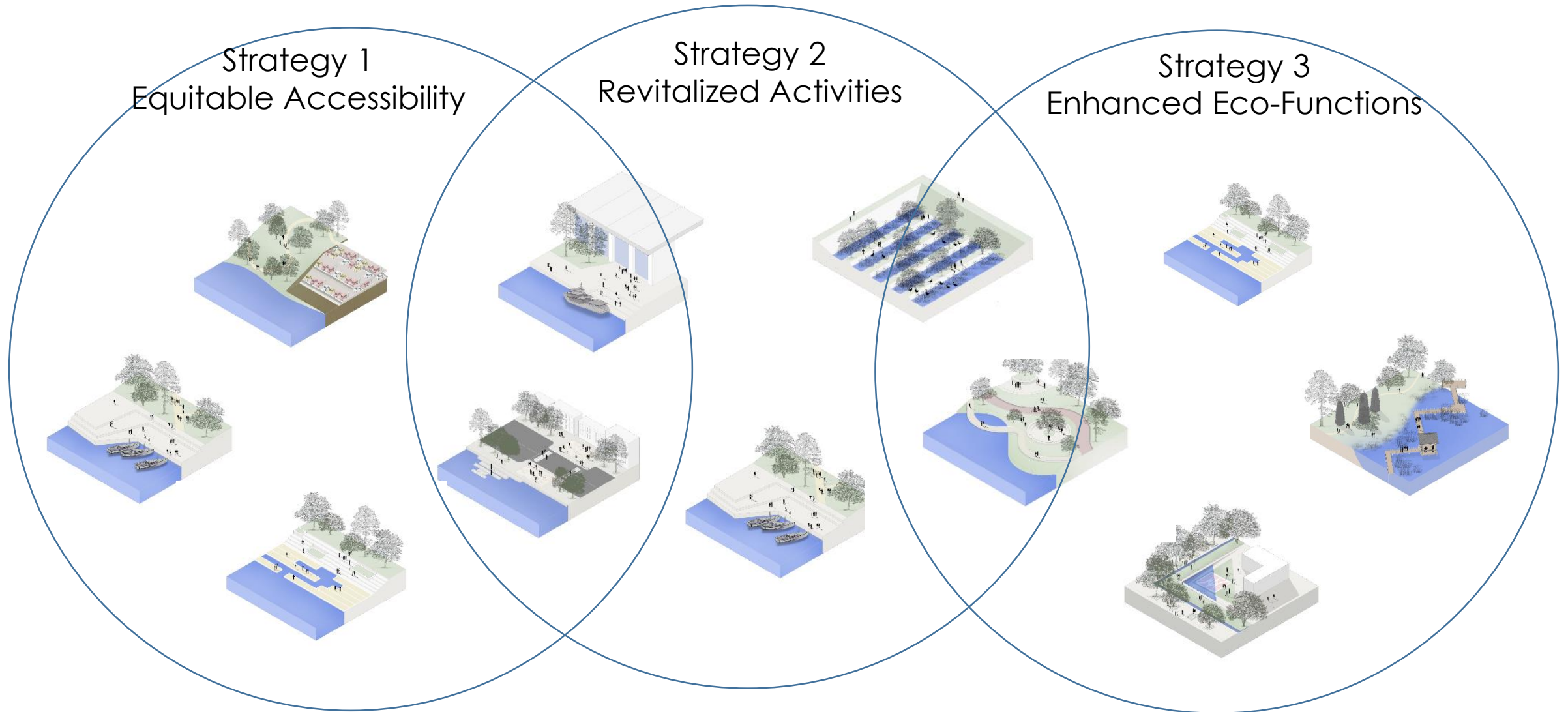
Strategy 4

Strategy 4 Community Cohesion



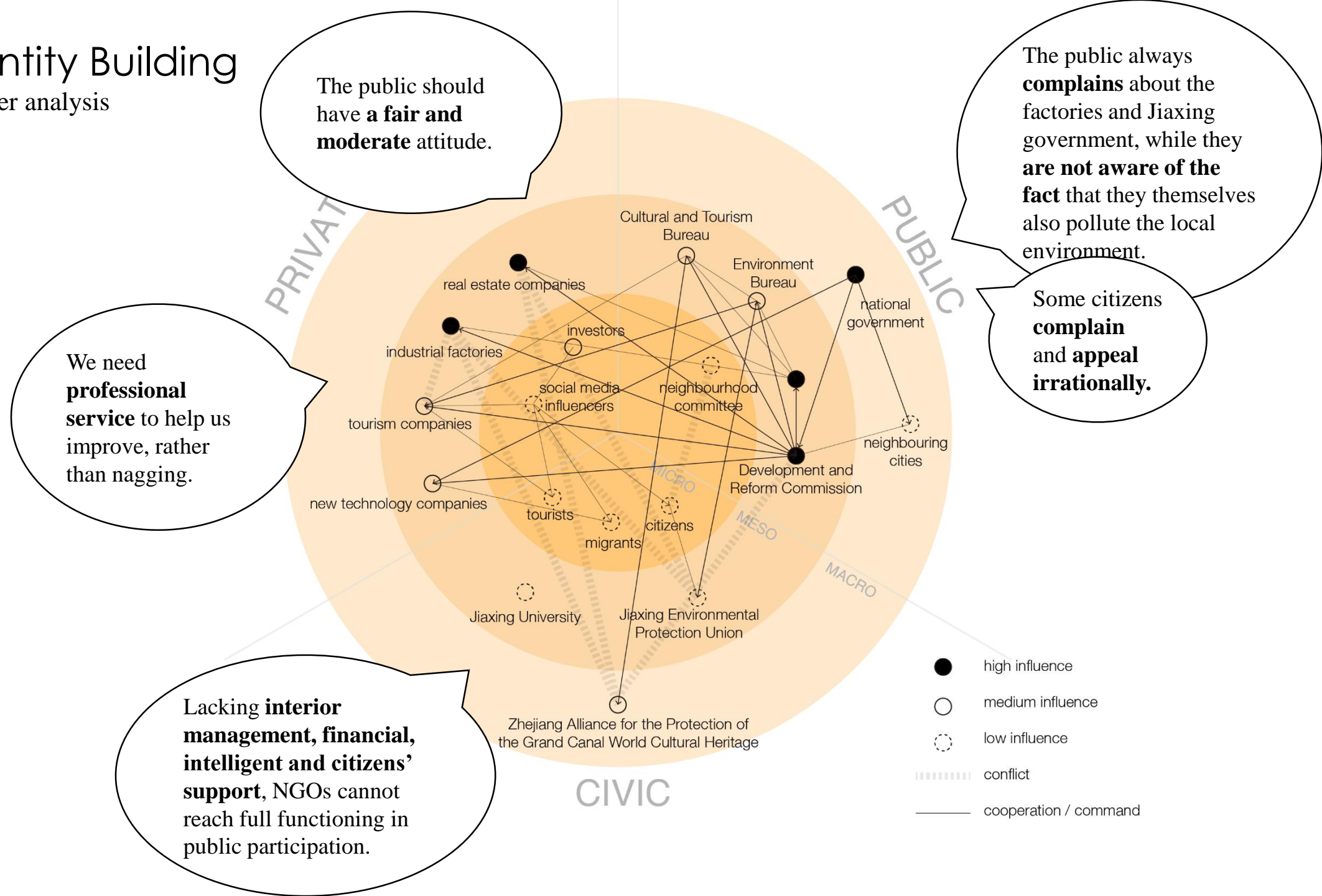
5. Identity Building

Toolkit



5. Identity Building

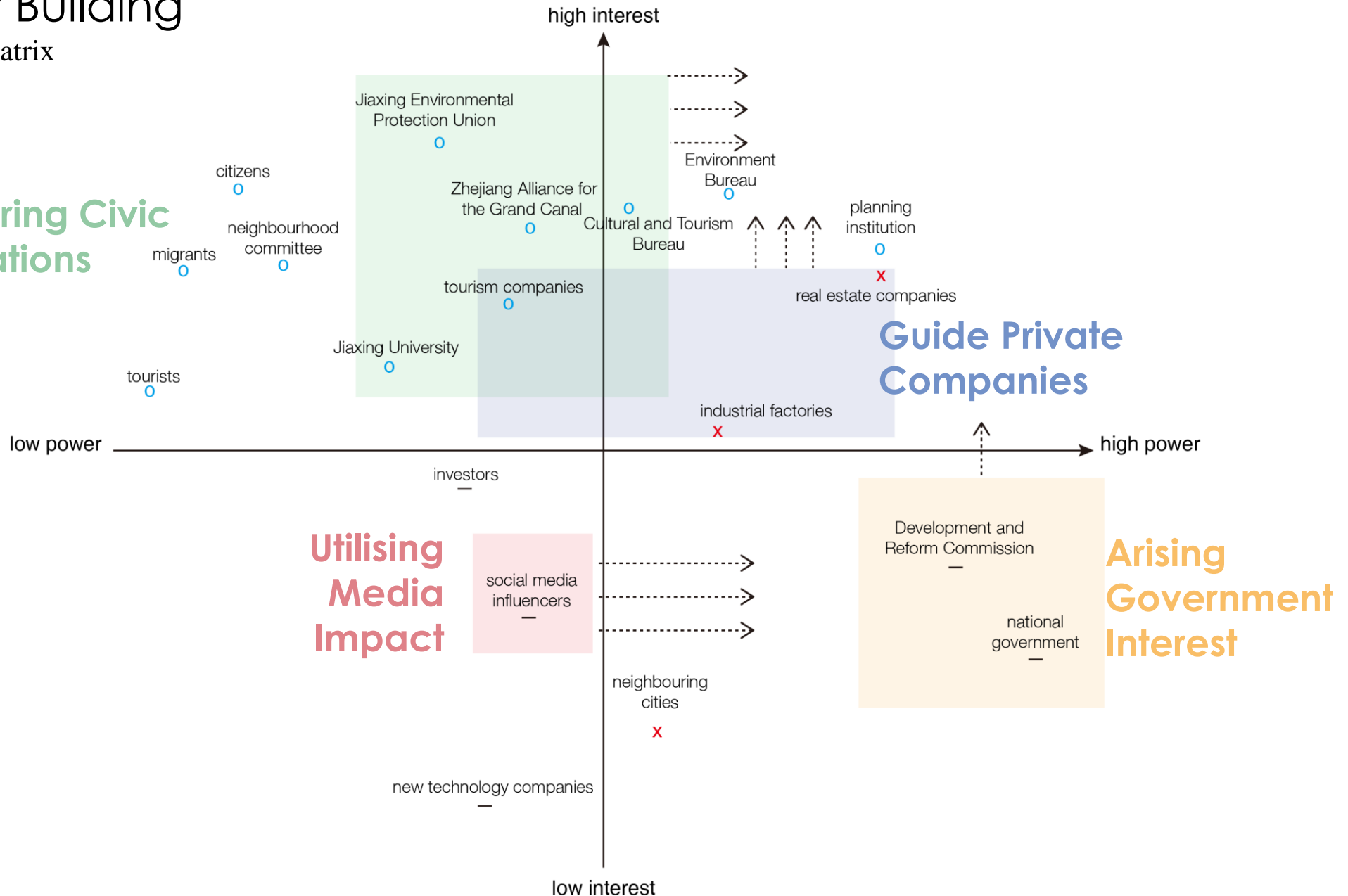
Stakeholder analysis



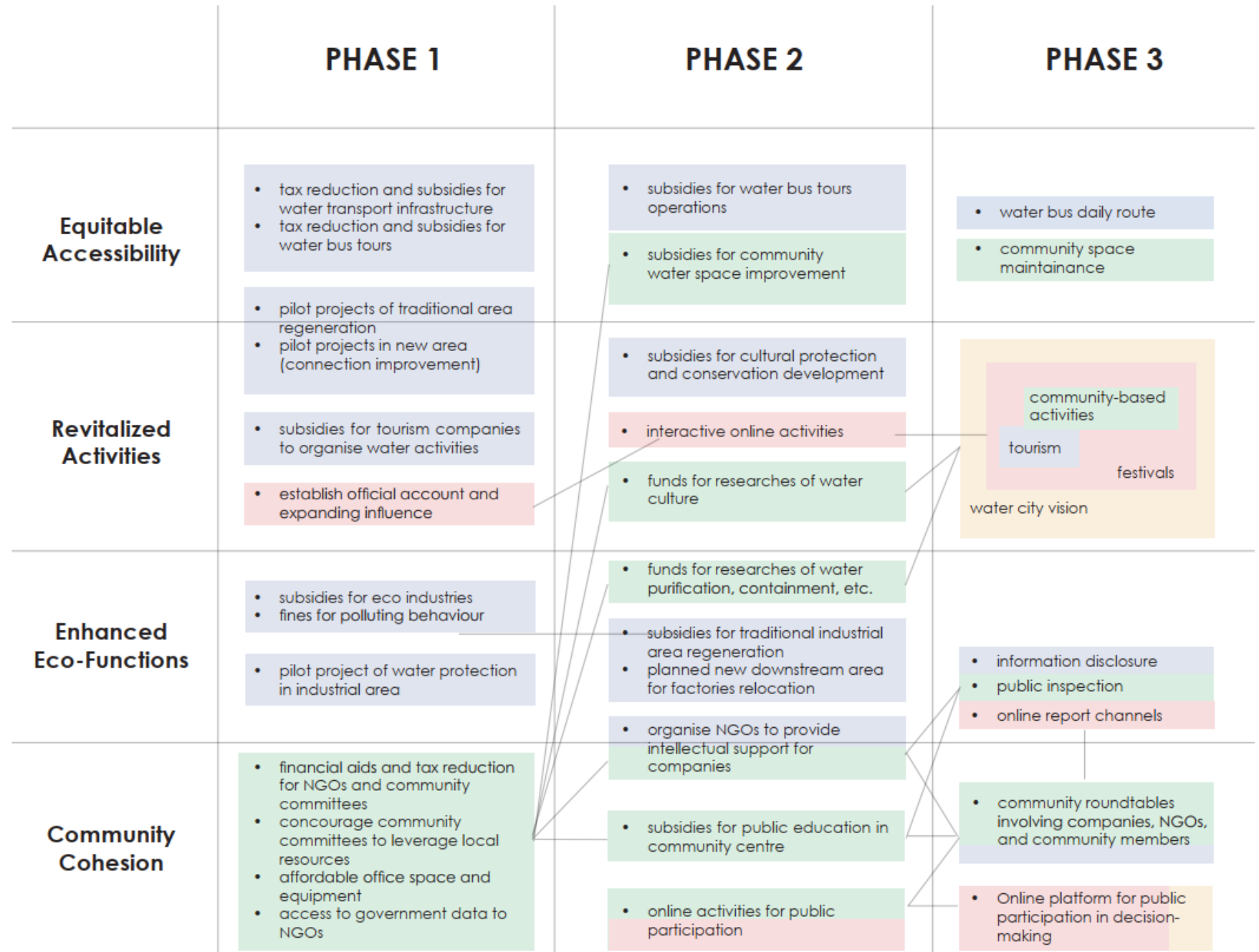
5. Identity Building

Power-interest Matrix

Empowering Civic Organisations



5. Identity Building Phasing



- Empowering Civic Organisations
- Arising Government Interest
- Guide Private Companies
- Maximising Media Impact

5. Identity Building

Phase 1

Subsidies for eco-business



Experimental zones for industrial parks transformation



Muhu Lake Park

Water bus



The Grand Canal Cultural Park



Nanhu Lake

Water space projects



Aid for NGOs and CBOs

NGO

Experimental zones central-park

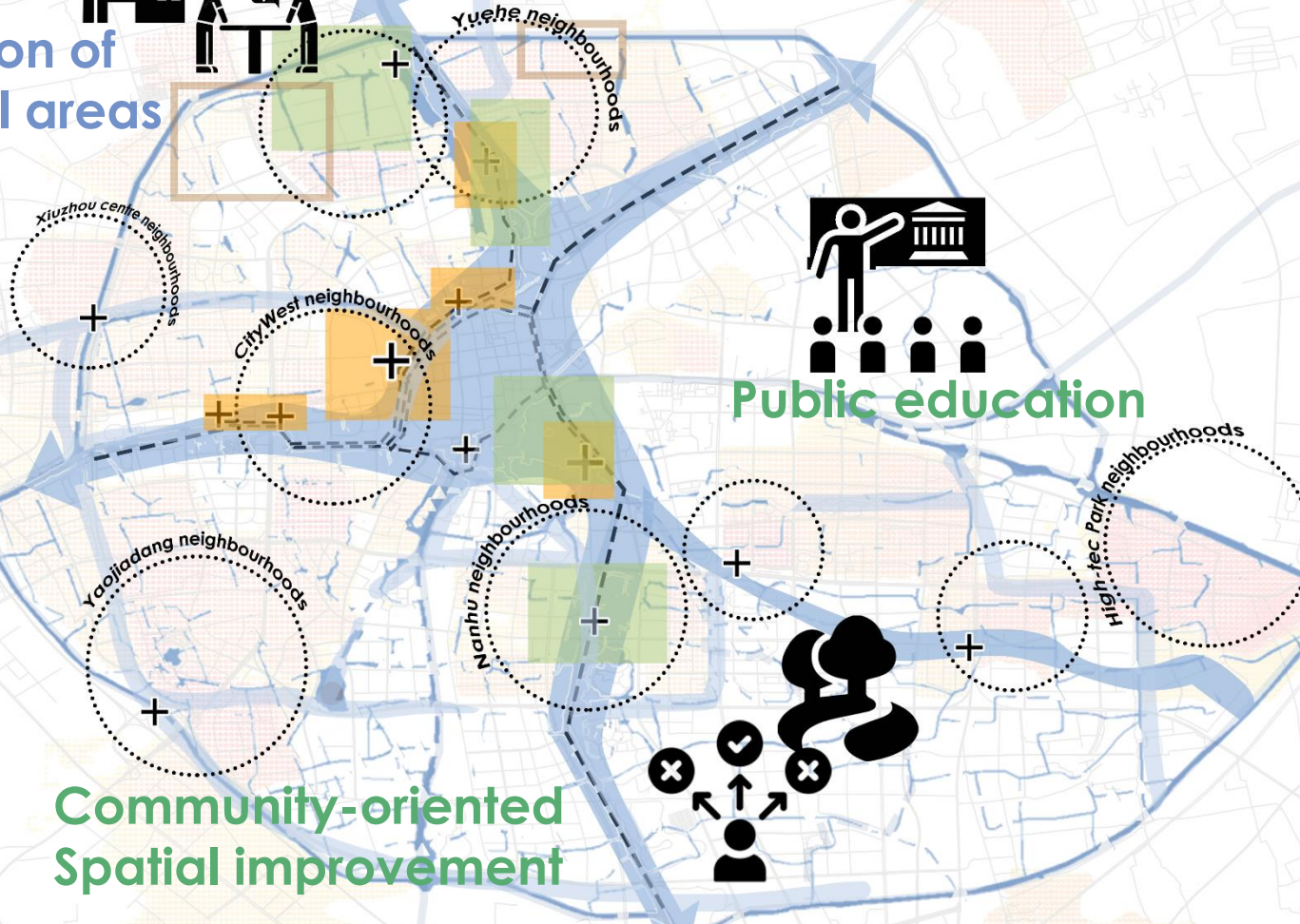


PHASE 1	
Equitable Accessibility	<ul style="list-style-type: none"> tax reduction and subsidies for water transport infrastructure tax reduction and subsidies for water bus tours
Revitalized Activities	<ul style="list-style-type: none"> pilot projects of traditional area regeneration pilot projects in new area (connection improvement) subsidies for tourism companies to organise water activities establish official account and expanding influence
Enhanced Eco-Functions	<ul style="list-style-type: none"> subsidies for eco industries finest for polluting behaviour pilot project of water protection in industrial area
Community Cohesion	<ul style="list-style-type: none"> financial aids and tax reduction for NGOs and community committees concourse community committees to leverage local resources affordable office space and equipment access to government data to NGOs

5. Identity Building

Phase 2

Relocation of industrial areas



PHASE 2

Equitable Accessibility

- subsidies for water bus tours operations
- subsidies for community water space improvement

Revitalized Activities

- subsidies for cultural protection and conservation development
- interactive online activities
- funds for researches of water culture

Enhanced Eco-Functions

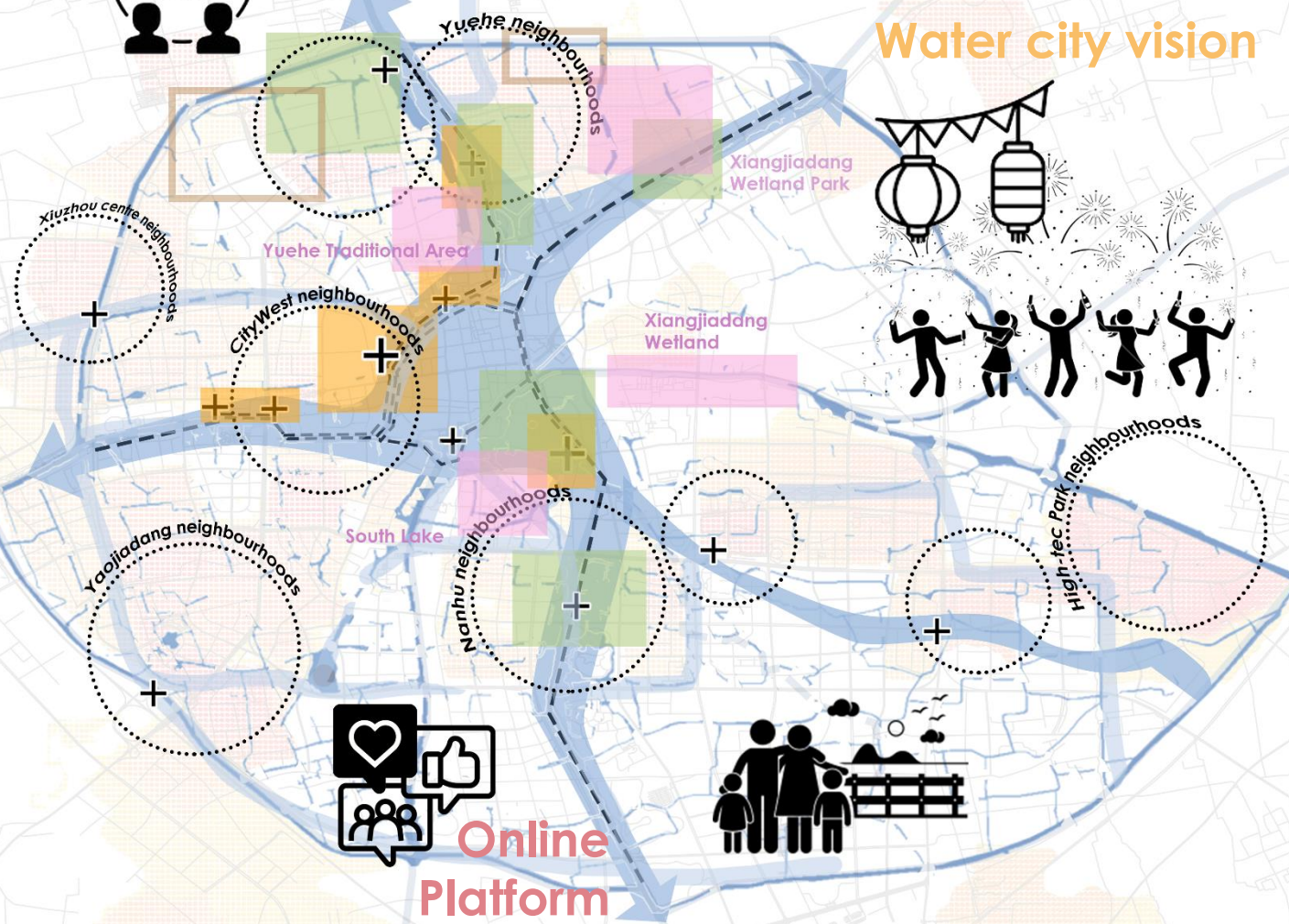
- funds for researches of water purification, containment, etc.
- subsidies for traditional industrial area regeneration
- planned new downstream area for factories relocation

Community Cohesion

- organise NGOs to provide intellectual support for companies
- subsidies for public education in community centre
- online activities for public participation

5. Identity Building

Phase 3



Water city vision



Online Platform

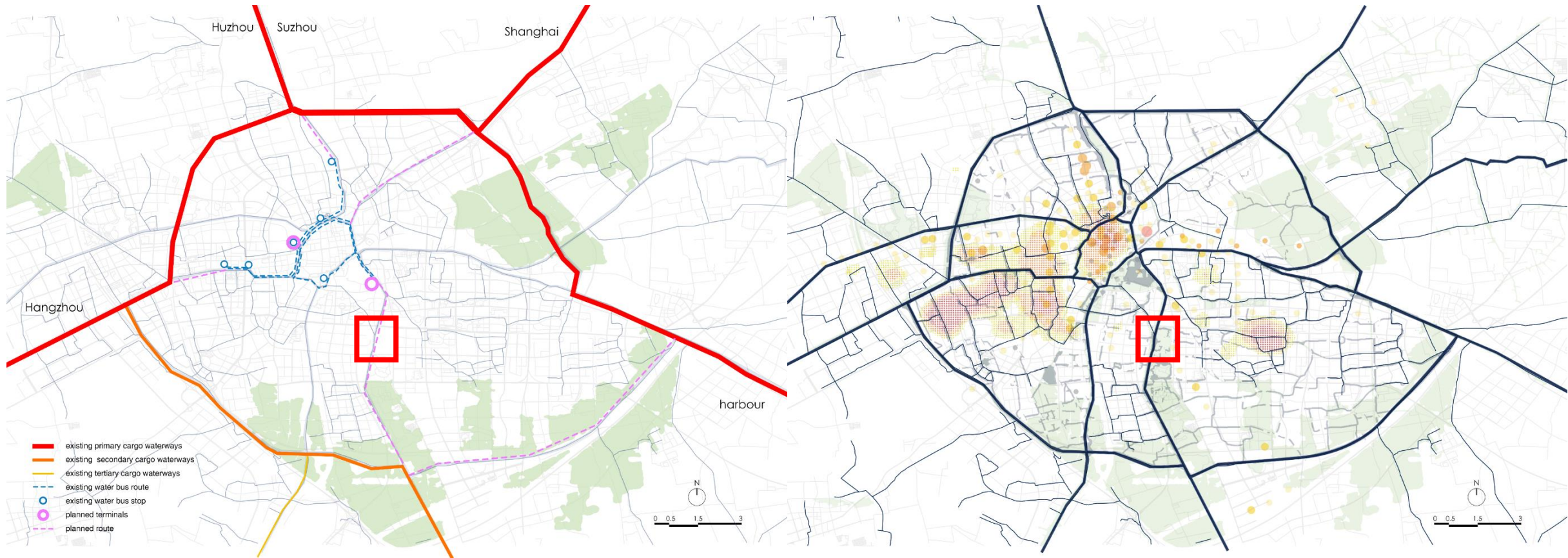


PHASE 3	
Equitable Accessibility	<ul style="list-style-type: none"> water bus daily route community space maintenance
Revitalized Activities	<p>community-based activities</p> <p>tourism festivals</p> <p>water city vision</p>
Enhanced Eco-Functions	<ul style="list-style-type: none"> information disclosure public inspection online report channels
Community Cohesion	<ul style="list-style-type: none"> community roundtables involving companies, NGOs, and community members Online platform for public participation in decision-making

6. Project Design

6. Project Design

Location



Location of the Project

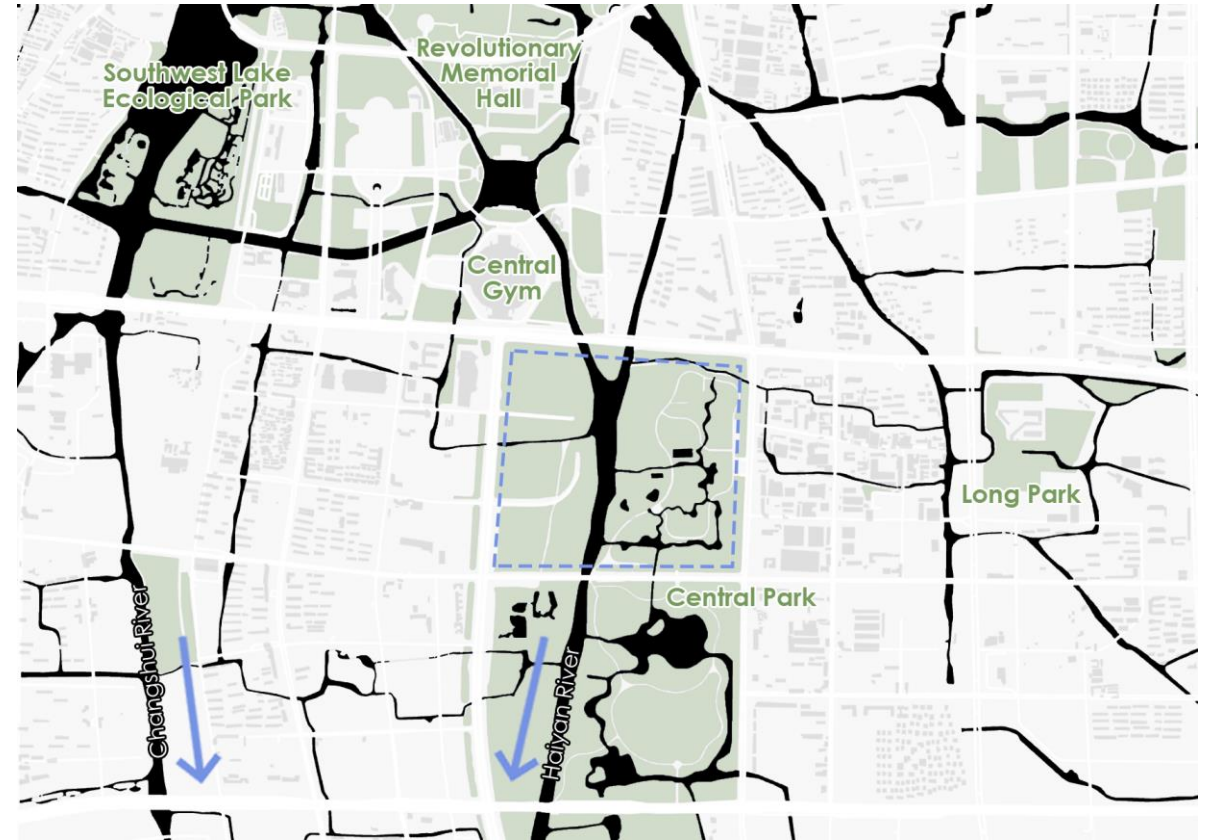
6. Project Design

Present situation



Bird eye view of Jiaxing Central Park

source: EADG



Green and blue system

6. Project Design

Lack of diversity



Water Space



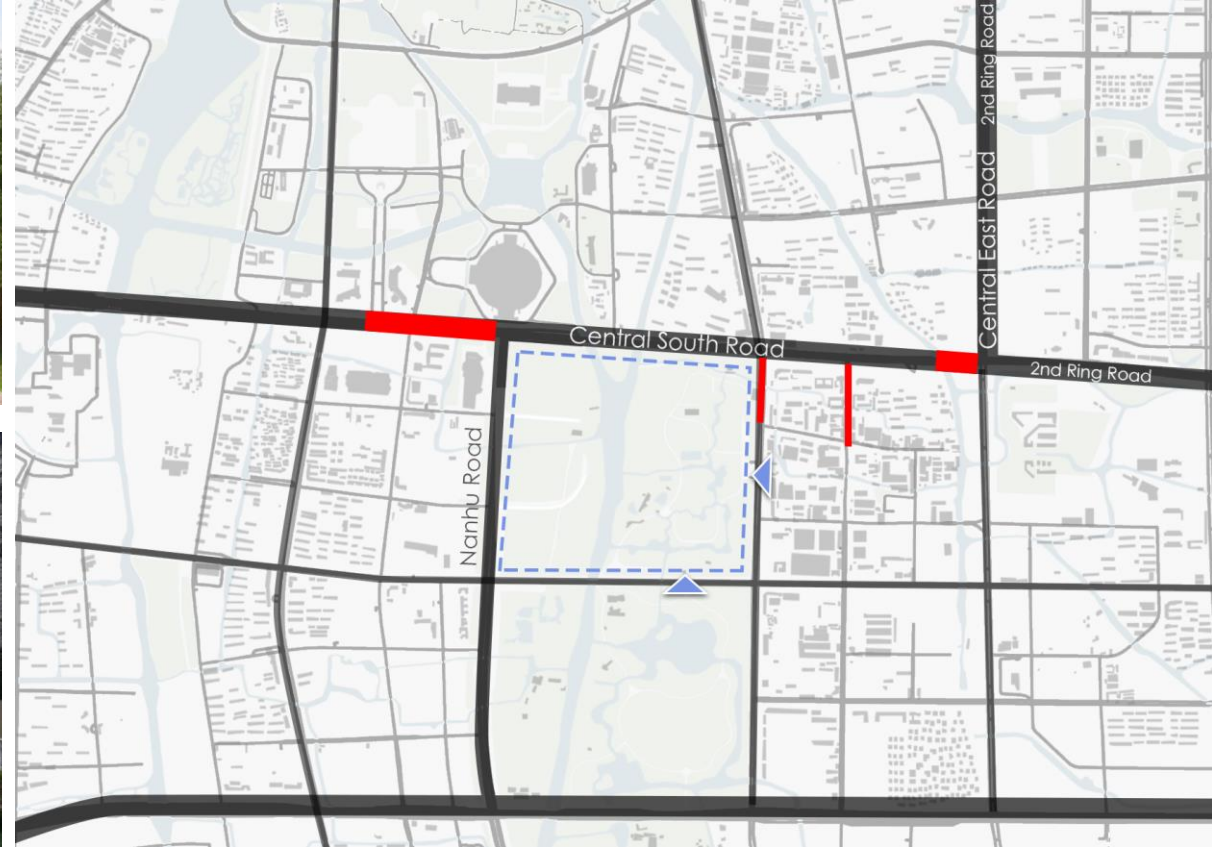
Green space

6. Project Design

Inaccessibility



Photo of the roads
Source: Baidu Map



Traffic Analysis

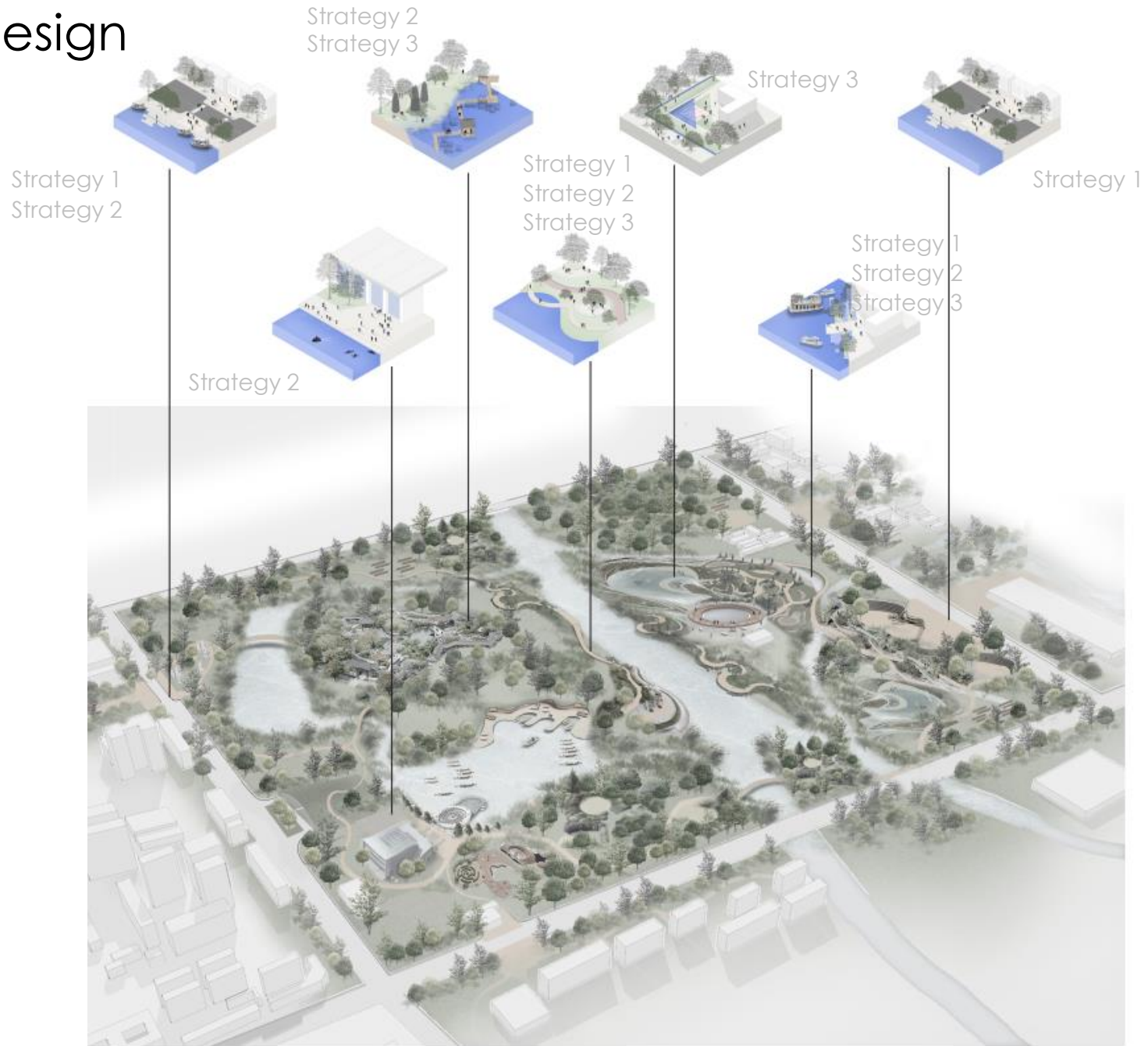
6. Project Design Concept



6. Project Design



6. Project Design



6. Project Design



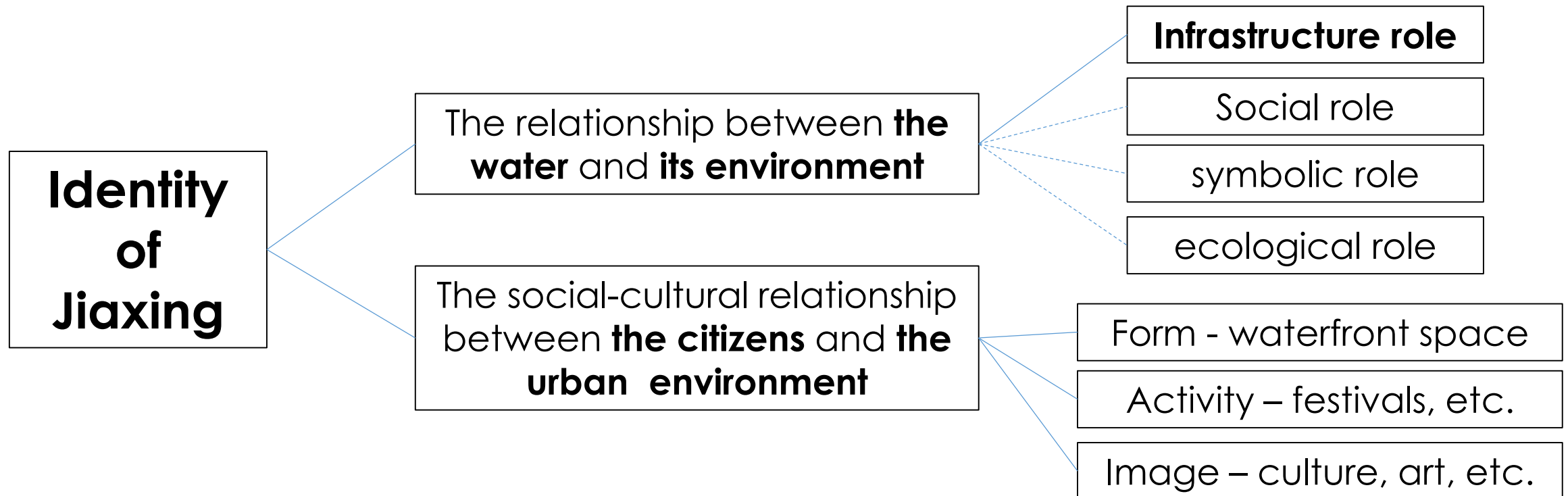
6. Project Design



7. Conclusion

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